

CRRT

Nursing Issues and Trends

2005

Geraldine Biddle, RN, CNN, CPHQ

Albany, New York

CRRT Meeting, San Diego, CA

March 2005



Objectives

- Present an overview and update on the international and national “Nursing Crisis”
- Present an update of actions underway to improve the health of the workplace
- Identify opportunities for collaboration that exist between nephrology nursing and critical care nursing in support of Kidney Care.

Nursing Crisis

- The Shortage
- The Shortage
- The Shortage



The scarcity of qualified health personnel, including nurses, is being highlighted as one of the biggest obstacles to achieving the **Millennium Development Goals** for improving the health and well being of the global population.

World Health Report 2003

- “The most critical issue facing health care systems is the shortage of people who make them work”.
- Approximately 4 million health care workers are needed worldwide in order to effectively fight diseases...in developing countries (Chen et al., *Lancet*, 11/27/2004)

Major characteristics of the global shortage of health care workers

- The triple threat of the HIV/AIDS pandemic is increasing workloads among health care workers, exposing them to possible infection and straining their morale
- Nurses and physicians moving from poorer nations to wealthier countries is creating a “brain drain” in the most-needy countries.
- Two decades of “underinvestment in human resources” has “hit economically struggling and politically fragile countries the hardest.”
 - Skill imbalances, maldistributions, poor work environments, weak knowledge

Source: Chen et al., *Lancet*, 11/27/04

Global Health Workforce

- Estimated to be more than 100 million people
 - 24 million doctors, nurses, and midwives
 - Three times more uncounted informal, traditional, community, and allied workers.
 - 4 million additional workers needed now
- Maldistribution
 - Sub-Saharan Africa has 1/10 the nurses and doctors for its population as has Europe.
 - Ethiopia has 1/15 of the professionals for its population as does Italy.

Selected categories of health workers per 100,000 populations

Region	Physicians	Nurses	Midwives
Africa	17	71	20
Americas	212	414	n/a
So. East	45	59	3
Asia Europe	327	663	42
E. Med	96	159	n/a
W. Pacific	157	186	13

Source: WHO 2004

Nursing shortage is the most extreme of all

- Compelling shortages exist of physicians, pharmacists, lab technicians, respiratory therapists.....but,
- Nursing shortage is, in many respects, the most extreme.
 - Nurses are the primary source of care and support for patients at the most vulnerable points in their lives.
 - Correcting issues related to the nursing shortage will improve the health care workplace for the benefit of all who work there, and ultimately for those whom they serve.

“The Global Shortage of Registered Nurses: An Overview of Issues and Actions, 2004”

- **Hugh variation** in nurse: population ratios throughout the world from 10 nurses per 100,000 population to 1,000 nurses per 100,000
 - Europe highest: 10 x that of lowest regions (Africa and South East Asia)
 - North America: 10 x that in South America
- **Ratio** in high-income countries is **almost eight times greater** than in low-income countries

Examples of Anticipated Country Shortfalls

- Nurse shortages:
 - Sub-Saharan Africa – shortfall of 600,000 to meet priority health interventions as recommended by the Commission on Macroeconomics and Health.
 - USA – 400,000 by 2020
 - Canada – 78,000 by 2011
 - Australia – 40,000 by 2010
 - London – 6.1 vacancy NHS posts after three months

Why is there a Nursing Shortage?

- U.S. - Three major factors:
 - **Supply and Demand:**
 - Declining enrollment in nursing schools and the aging of the nursing workforce will decrease the pool of registered nurses with a critical shortage starting in 2010 when today's nurses start to retire while the overall demand is predicted to increase.
 - **Retention and Work Place Issues:**
 - The physical and emotional demands of the environment created by increasing workloads, decreased staffing ratios and mandatory overtime are contributing to increased turnover and nurses leaving the profession. Nurses report feeling undervalued, overworked and underpaid.
 - **Recruitment and the Image of Nursing:**
 - Changed from a field that offered many opportunities to one that is viewed as uncertain and often dangerous. Women have more career opportunities and many students view the job as having unsatisfactory working conditions and low salaries compared to other professions. Many nurses would not recommend nursing as a career choice.

AACN, March 02

Assessing the U.S. Shortage

■ Supply

- > 2.5 million working RNs in the US (State Boards of Nursing reports)
- Trends indicate more than half will retire by 2010
- Present average vacancy rate for RNs is 13%
 - 1 in 7 hospitals nationwide has reported RN vacancy rates higher than 20%
 - Nurse vacancy rates have increased for 60% of all hospitals since 1999 and are expected to reach **23% by 2008**

■ Demand

- 78 million baby boomers
- Estimate – by **2020 there will 400,000** fewer nurses available to provide care that will be needed (AJM, Buerhaus)

■ Age

- Average age of working RN is 43.3 and increasing more than twice that of all other workforces in the US.
- Only 12% of RNs in workforce are under 30 (decline of 41% since 1983)
- By 2010 the projected average age of the **working RN will be 50**

Average Age of Nurses in Developed Countries

	Can	Den	Ger	Ice	Ire	Jap	NZ	Nor	Swe	US
Average Age Employed Nurse	43.7	43	39.5	44	41.4	M 36 F 38.9	42.6	43.4	44.7	43.3

Source ICN: 2004

Impact of Shortage

- Emergency department over-crowding in their hospitals (38%)
- Diversion of emergency patients (25%)
- Reduced number of staffed beds (23%)
- Discontinuation of programs and services (17%)
- Cancellation of elective surgeries (10%)
- Nurses feel it is more difficult to provide quality care today because of shortages (60%)

The Issue is Safety and Quality of Care

JCAHO - High acuity patients/fewer nurses =
prescription for danger

- Staffing levels a factor in 24% of 1609 sentinel events
 - Other contributing factors: patient assessment, caregiver orientation and training, communication, staff competency

Magnet Hospital Experience

- **Optimal Staffing** ↑ quality ↓ costs and better outcomes
 - Studies have shown fewer complications, fewer adverse events, shorter lengths of stay, lower mortality.

The Shortage is Real and a Critical Problem

- Systemic problem that cannot be ignored any longer
- Requires system wide solutions
- Partnerships for change



ICN: Policy Interventions Framework

- Four components:
 - Workforce Planning
 - Recruitment and Retention
 - Deployment and Performance
 - Utilization and Skill Mix
- Framework components and associated policy interventions are interdependent
- Effective policy intervention requires leadership and stakeholder involvement
- Policy interventions must be appropriate to the country context and objectives

Change Requires Leadership

- Improved opportunities for stakeholder involvement
- A strategic approach which recognizes the interdependency of different policy interventions
- ICN Leadership Development
 - **Leadership for Change** – Aimed at assisting senior nurses at the country or organizational level to:
 - Influence health policy and decisions
 - Be effective leaders and managers in nursing and health services
 - Prepare other future nurse manager and leaders for changing health services
 - **Leadership for Negotiation** – Objectives are:
 - Support national nurses' associations in their efforts to exercise leadership in the delivery of health of health care and for the nursing profession
 - Provide nurse leaders with knowledge and skill development in the area of negotiation
 - Provide basic knowledge in economics and management sciences

ICN, 2004

We can't do it alone....

- “The shortage is a complex issue with many causes that will require the combined efforts of all stakeholders in the healthcare industry to implement strategies that will increase the supply of registered nurses and nurse educators and improve the image of nursing and the workplace environment.”

AACN 2002

Partnerships

- Joint Commission on Accreditation of Healthcare Organizations
- American Hospital Association
- American Nurses Association
- Robert Wood Johnson Foundation
- Nurse Specialty Organizations
- Hospital CEOs
- Public Policy makers
- Nurse Executives
- Schools of Nursing
- Physicians
- Private industry
- Insurors

“Health Care at the Crossroads Strategies for Addressing the Evolving Nursing Crisis”

- JCAHO Public Policy Initiative - 2002
 - Action Plan
 - Gathering information and multiple perspectives on the issue
 - Formulation of comprehensive solutions
 - Assignment of accountabilities for these solutions
 - Execution of plan
 - Convening roundtable discussions and national symposia
 - **Issuance of white paper** (available on-line)
 - Active pursuit of suggested recommendations
- Update – 2005
 - Active pursuit of recommendations
 - Specific recommendations formulated
 - Assigned accountabilities for carrying out these recommendations

JCAHO White Paper

■ **Part I: Create a culture of retention**

- State of the workforce
- High Cost of High Turnover
- Not a Great Place to Work
- It's Not the Patients
- A Safer Work Environment
- On-the-Job Abuse
- Safe Staffing Levels
- Nursing Leadership
- The War for Talent
- Filling Vacancies
- Mandated Ratios
- Improving Work Flow
- Winning Characteristics
- The Next Generation

■ **Part II: Bolster the Nursing Education Infrastructure**

- Educators on the Endangered List
- Modest Federal Funding
- Too Little Training
- Orientation, In-Service and Continuing Education
- Commensurate Career Paths

■ **Part III: Establish Financial Incentives for Investing in Nursing**

- An Alignment of Incentives
- Reimbursement that Rewards

Focus of attention is the Hospital

- The health care delivery system's most complex setting of care
- The greatest consumer of resources
- The site where new advances in care (and their associated risks) are most commonly introduced
- The best example of both the problems underlying the nursing shortage and of the solutions most likely to bring about its resolution
- Hospital learning will help address equally serious problems in nursing homes, home care, and other service venues.

Stakeholder Initiatives

- ANA – *A Call to the Nursing Profession: Nursing's Agenda for the Future*
- AONE – *Perspectives on the Nursing Shortage: A Blueprint for Action, 2000*
- JCAHO – *Health Care at the Crossroads: Strategies for Addressing the Evolving Nursing Crises, 2002*
- IOM – *Committee on Work Environment for Nurses and Patient Safety, 2003*
- ANSR – *American for Nursing Shortage Relief*

Specialty Organizations

■ AACN

- Standards for Establishing and Sustaining Healthy Work Environments (January 2005)
 - Skilled Communication
 - True Collaboration
 - Effective Decision Making
 - Appropriate Staffing
 - Meaningful Recognition
 - Authentic Leadership
- Silence Kills – The Seven Crucial Conversations for Healthcare (VitalSmarts 2005)
- AACN Pledge

■ ANNA

Acute and Chronic Renal Care: Today's Realities

- Critical Care Nursing
 - Staffing ratios mandated, but: ability to meet mandates; high turn over rates; inappropriate skills mix
 - Inadequate orientation, skills/technology training, continuing education, mentoring
 - Lack of collaboration and respect, poor communication
- Chronic Renal Care Facilities
 - Staffing ratios not mandated:
 - Work overload and burnout
 - High patient/staff ratios; increasing acuity
 - Over utilization of unlicensed personnel: delegation has gone too far
 - Recognition of unsafe conditions but inability to effect change
 - Dialysis Units unable to accept new patients: waiting lists, hospital units backed up
 - Corporate chains of dialysis centers: drive staffing and practice
 - Professional Isolation
 - Image Problem: hazardous, depressing work
- Nursing generational gaps – older attitudes vs. younger (lack of motivation, educational gaps, lack of hospital experience)

In the meantime... there is Kidney Disease

Take it one day at a time...

The shortage affects all patients with chronic and acute kidney failure, and all nurses who provide care to them.



A Few Facts About Kidney Disease

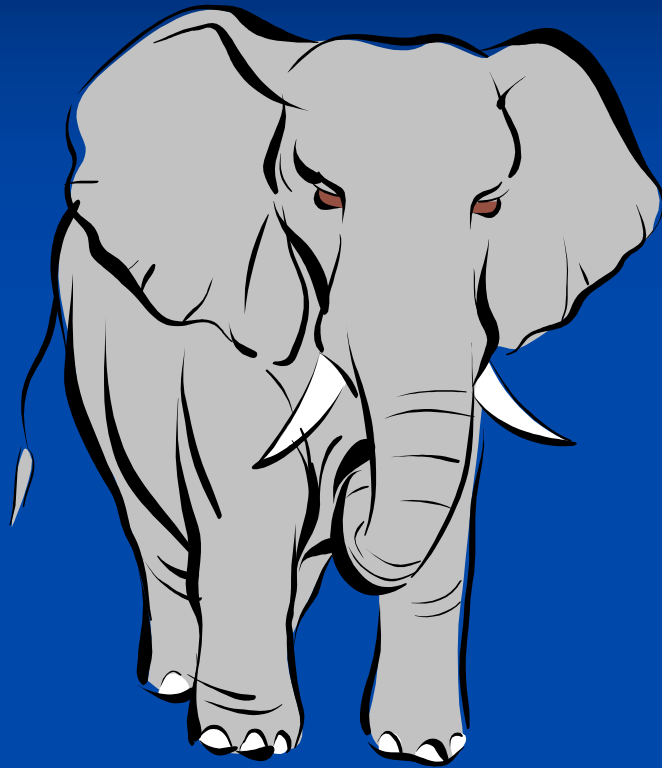
- About 20 million Americans have kidney disease: number of diagnosed people has doubled each decade for the last two decades
- In 2002 approx. 486,000 Americans were suffering from ESRD (431,284 in treatment)
- Medicare ESRD program cost - \$17 billion 2002 (6.7% of total Medicare Budget)
- Diabetes (35%) and hypertension (29%) are the number one and number two causes of kidney disease
- About 5% of all patients admitted to the hospital have kidney problems; 40% of ICU patients

Critical Goals for Kidney Care

- Prevention
- Early Detection/Diagnosis
- Preservation of function
- Delay onset of ESRD

Workforce: Foster Professional Nursing Partnerships for Renal Care

- Renal Critical Care and Nephrology Nursing – Different and the same!
 - **Critical care focus:**
 - Early detection, preservation of function, and prevention of chronic renal failure
 - Acute renal replacement therapy options
 - Management of inter-current problems
 - Return of function
 - Renal education for patient and family members
 - End of Life counseling
 - **Chronic care focus:**
 - Early detection, preservation of function, preparation for chronic renal replacement therapy
 - Renal education for patient and family members
 - Chronic renal replacement therapy options
 - Preparation for Transplant
 - Management of inter-current illnesses
 - End of Life counseling



AACN



ANNA

CRRT - Workforce Assessment

- Critical Care Nurses
 - Supply of nurses is better
 - Better staffing ratios
 - Problems:
 - Turn over of staff
 - Education about ARF
 - CRRT education and training
 - Matching nursing skills to patient needs

- Nephrology Nurses – ARF
 - Critical shortages of nurses
 - Acute dialysis/CRRT staff better trained but not available for CRRT procedures
 - Over delegation to unlicensed personnel

Nursing Education – CRRT Core Learning

- Understanding the source of ARF
 - Pre-renal
 - Intra
 - Post
- Early identification of renal impairment
 - High volume/High risk (40% ICU patients have renal involvement; high mortality)
 - Time matters – time from insult to renal insufficiency
- Management Strategies
 - Method of CRRT
 - Choice of Access
- Treatment issues:
 - Dose of CRRT
 - Anticoagulation
- Complications
- Preserving/preventing CRF
- After the ICU

Expand the Knowledge Base

- Clinical Practice Guidelines
 - Adequacy of Dialysis (prescribed and delivered dose)
 - Access
 - Anemia (epo and iron management)
 - Infection control
 - Nutrition
 - Calcium/Phosphorus management
- Patient and Staff education materials
- Performance Measurement/Quality Improvement

Foster Education Partnerships

- Encourage cross fertilization of learning among all health care professionals
- Produce co-sponsored chapter meetings (AACN and ANNA)
- Plan shared presentations
- Share organizational documents

What Nephrology Nurses Should Learn from Critical Care Nurses

- Critical Care Management of ARF patients
 - Enhanced nursing knowledge and skills - looking beyond the kidney!
- AACN
 - Position papers
 - Healthy work environment initiatives
 - Effects of mandated staff to patient ratios
 - Experience with competency based staffing
- Nursing Research
 - Developing nurse sensitive outcomes

What Critical Care Nurses Might Learn from Nephrology Nurses

- CKD management
- Patient and nurse education programs
- Use of Clinical Practice Guidelines in measuring, assessing and improving care
- Use of renal data bases (i.e., CDC Surveillance, USRDS, Network Data)
- ANNA
 - Nephrology Nursing Core Curriculum (CRRT)
 - ANNA Standards and Guidelines of Clinical Practice for Nephrology Nursing (CRRT)

World Wide Issues

The Nursing Shortage
Epidemics of Diabetes and Kidney Disease



WFRC



WORLD FOUNDATION
FOR RENAL CARE



Kidney Disease in Developing Countries

- Teaching, Learning, Sharing
 - ISN-COMGAN
 - World Foundation For Renal Care
- Studies:
 - Acute Renal Failure in Poorer Countries
 - Epidemiology of Renal Failure in Indigenous Populations

Summary

- Healthcare manpower shortages are prevalent throughout the world and are the major obstacle to the achievement of the UN - WHO Millennium Development Goals (MDGs) by 2015
- International and national nursing shortages are at a crisis level.
- International Council of Nurses has developed a policy paper on the global nursing shortage that is being employed in many of the developing countries.
- Within the United States, systematic efforts are underway to address the most critical aspects associated with the supply and demand of nurses.
- Whether global in nature or country specific, major issues that must be addressed are creating healthy work environments, improving communication, developing competency based staffing models, and leadership development.

Summary Continued

- Wealthy nations should educate enough of their own residents as nurses and physicians rather than rely on health care workers from other nations.
- Train workers who are not physicians but who can diagnose and treat major diseases in Africa and perform some surgeries.
- With regard to renal care, the objectives are the same and nurses must identify opportunities for collaboration that exist between nephrology nursing and critical care nursing in support of the world wide epidemic of diabetes and kidney disease.

Final Thoughts

- People provide health care, design health systems, and educate future health workers. People – public health workers, nurses, health aids, village health workers, physicians, lab technicians, and managers – are the human resources for health that are the heart of the health system of every country. The number, skills, and morale of these clinicians, teachers, and policy makers largely determine the performance of health systems. Although this is widely recognized, the topic of human resources for health has been largely

- “We know that the quality and dedication of health workers are critical to health and development, yet the nature of the workforce – skills, motivation, support systems – has received little consistent transnational attention. Unless we focus on the human component of health systems development, it seems fair to predict that the goals of the global health community – such as more equitable access to life-saving vaccines and treatments – and the larger-scale improvement reflected in the United Nations’ Millennium Development Goals – will not be met. Without a better understanding of the human component of health systems, we risk going forward with health-sector reforms that will be neither effective nor sustainable.”

- We need to re-think fundamentally the way human resources working in health in the developing world are trained, employed and deployed.”