GENETICS & GENOMICS NURSING COMPETENCY STRATEGIC IMPLEMENTATION PLAN
10/2006 – 10/2011

GOAL: Infrastructure

Provide the structure, direction, and focus for all efforts identified under the three critical goal areas of Practicing Nurses, Academics, and Regulation/Quality Control as well as provide centralized coordination of strategic plan activities.

Strategy	Outcome Measure
Develop a Center modeled after United Kingdom Centre that serves as the main infrastructure for strategic plan implementation activities • Coordination and Communication of all strategic plan multi-organizations efforts ⇒ Listserv ⇒ Newsletter • Clearing house of existing education programs that educates nurses in genetics/genomics ⇒ Perform gap analysis to identify needed resources • Establish a Speakers Bureau including area of genetic and genomic expertise • Consistent evaluation of resources-could work with National Coalition for Health Professional Education in Genetics (NCHPEG) and Genetic Alliance • Identify and catalogue nursing change champions in genetics and genomics • Link to/from endorsing organization websites	Comprehensive Center infrastructure established. Center website launched Partnership with UK NHS Centre
Identify a consistent theoretical framework for implementing strategies to achieve genomic nursing competency • i.e. Planned Behavior, Diffusion of Innovation or STAR model	Consensus on theoretical framework
Design and implement a nursing and genetics/genomics Marketing/Media Campaign ***Nursing Specific*** • Awareness of importance of genetics/genomics for nurses • Create an incentive for personal development • Development of consistent messages (i.e., fact sheets) • Utilization of the consumer to emphasize messages (i.e., Genetic Alliance) • Work with endorsing organizations to get the word out. • Submit abstracts for poster/presentation at national meetings about the Competencies • Articles for/with CE; also sidebars • Develop good marketing: "care for the caregiver"…this matters to you • Add genetics to everything…relevance for all nursing • Use Family History month • Make Genetics and Genomics the Theme for nurse's week • Develop top 10 slides to raise awareness and get info included at key conferences, National Nursing Staff Development Organization (NNSDO) ***Consumers Specific*** • Media ads	Multi-faceted Media Campaign will have been launched

• Engage Genetic Alliance • Celebrity association (Mary Tyler Moore, Oprah Winfrey, former Surgeon General Carmona) • AARP • National Consumers League	
Utilize previously successful education model. Consider End-of-Life Nursing Education Consortium (ELNEC) program model • Make sure that what is being taught is what is considered to be the 'best' • Resources available to take back to organizations • Establish a Genetics/Genomics Nursing Education 'Toolkit'	Consensus on education model Mechanism in place to evaluate resources and education strategies
Convene a Panel to establish nursing outcome research priorities • Consider American Academy of Nurses (AAN) genetic health care expert panel as partner • Consider NIH State of the Science Consensus Panel • Develop an agenda in research on genetics/genomics including outcomes evaluation of existing resources • Are their different types of evidence translatable to all varied practice settings (i.e. home care to tertiary centers) • Meta analysis of content within nursing schools of genetics/genomics content • Consensus on framework for evaluating the state of competency in nursing-practice outcomes • Team with state boards with grants having to do with research associated with nursing outcomes & genetics	Panel will have convened and will have produced a research priority agenda and metrics
Evaluate nursing genetics/genomics competency ***Practicing Nurses*** Conduct online genetic/genomic competency survey for baseline benchmark; repeat in 3- 5 years for comparison. • NCLEX eligible nurses • Licensed nurses Continuing education conferences: • the degree to which genetics and genomics is included in annual specialty organization conferences Certification: • Survey to evaluate test plan and/or genetic content in the test • is genetics/genomics in the test plan • do the questions accurately evaluate that content ***Academics*** • Survey deans and program directors for faculty competence/expertise to teach genetics (and NNSDO)	Baseline surveys will have been conducted with plans in place for comparison assessments
Expand Competencies to include: Learning Outcomes Practice Indicators	Competencies expanded to include these additional items
Establish Awards ⇒ **Recognize efforts** ⇒ **Recognize educational programs** ⇒ **Recognize best practices**	

GOAL: Practicing Nurses

- **All nurses in practice will have a foundation of knowledge in basic human genetics and genomics and current applications to nursing practice.**

Strategy	Outcome Measure
Continuing genetic/genomic education (CE) ***Professional Nursing Organizations*** Explore Aging Initiative Model as a vehicle to expand competence Continuing Competence Concept Target endorsing organization annual meetings • Poster presentation about competencies • Requirements for including genetics/genomics in CE • Identify Champions for Change in each organization to assist in implementation • Ask for genetics components in organizations conferences • Be sensitive to controversial issues with genetics/genomics with some groups (i.e., American Indian) • Models for CE ⇒ Train the trainer ⇒ Family history as exemplar [assessment & pedigree construction; decision support; tools to complete; electronic medical record; Surgeon Generals Tool; articles in practice newsletters/journals] ♦ Eliciting stories of the family and patients ♦ Ensuring inclusion in the nursing assessment ♦ *Is there enough time to include this in nursing practice??* ♦ Build into nurses' notes/electronic medical record to ensure completion ♦ What does 'history' include? Varies across levels of practice, area of nursing practice, specialty ♦ How to facilitate achieving competency – 3 generation pedigree ♦ Issue of critical illness – timing factor in obtaining family history (especially in peds CC setting) ♦ Critical thinking re: application of family history elements to acute care ♦ What needs to be taught at each level in order to achieve this? ♦ Analysis of family history – implications – is essential ♦ Who is responsible? ♦ Ethics and responsibility ♦ Involving families – gathering family history at point of entry into care; use of online family history tool; access issues; leaving life history with the next generation ♦ Applicability outside of genetics ♦ Having nurses do their own family history – realization of importance of family hx ♦ Potential partnerships – J&J, AMA; pushing importance of family hx to nursing ⇒ Vignettes/case scenarios ⇒ Video ⇒ Toolkits tailored to specific populations (small "chunks") ⇒ Slide set	

⇒ Internet (Web-based seminars, podcasts, self-learning modules) Target Boards of Endorsing Organizations • Inclusion/integration of genetics/genomics in guidelines/standards/position statements • Organization representatives-develop strategies with organizations of what they can do to help Target Nursing Organization Alliance • Get genetics and genomics on annual meeting agenda • Have each organization to comment on whether they endorsed the competencies ***Hospital/Ambulatory/Community/Public Health Settings*** ***Integrate into staff development*** • Adapt/adopt modules that are already available that are standardized, user-friendly • Identify novice to expert levels • Integrate ethical and cultural considerations of genetic/genomic care and issues • Include in all clinical roles/settings • Link to Risk Management and QA • Establish pop-up options within patient documentation systems • Establish downloadable clinical care algorithms at point of care • Work with NNSDO (staff development) ⇒ include genetics in core orientation ***Establish clinical requirements and incentives*** • Orientation • Clinical Ladders; awards • Include genetics and genomics as part of Magnet designation criteria. • Pay differential • Renewal of license/credentialing requirements ***State Nurses Associations*** • Work with individual states to require CNE in genetics and genomics for re-licensure • Prioritize work with "progressive" states ⇒ North Carolina ⇒ Texas ⇒ Arizona	
Develop genetic and genomic publications targeted for the practicing nurse • Target endorsing organization using a variety of media products to deliver message – tailor content to the reader (Speakers bureau, text-based, web-based, journals and newsletters) • Ideas for publications include: ⇒ Telling stories ⇒ Framing case studies ⇒ Including genetics/genomics in clinical context Recognize genetic contribution if something isn't working (i.e., gleevec, albuterol). ⇒ Template for article – allow organizations to put their 'story' at the beginning of the template, with additional information at the end ⇒ Special issue on genetics/genomics with scheduled repetition to include new info	Publications in press in nursing practice targeted venues
Incorporate genetic/genomic content into specialty certification	Nursing specialty

• Work with practicing groups/Endorsing Organizations to evaluate genetic/genomic content on specialty certification examinations and integrate competencies into certification examinations ⇒ Establish model genetic/genomic questions • Identify test-item writers	certification survey on genetic/genomic content completed Repeat survey demonstrates increased genetic/genomic content

GOAL: Academics

All nurses will have a foundation of knowledge in basic human genetics and genomics and current applications to nursing practice.

Strategy	Outcome Measure
Prepare faculty to teach genetics and genomics ***Faculty Requirement*** • Integrate genetics/genomics content into NLN Education Certification Examination • Work with the Deans to support genetics and genomics in nursing preparation • Establish incentives ⇒ Career Development (Tenure recognition) ***Faculty Development*** • Faculty development day on content and practical application of genetics/genomics for curriculum integration • Get buy-in from Deans • National /regional discussions among educational faculty and all stakeholders via technology access • Use ELNEC model to integrate and "train the trainers" for faculty development • Establish faculty listserve ***Faculty Champions*** • Identify champions for change • Identify faculty mentors • Establish registry of Clinical Leaders in Genetics-SGI, ISONG, Cincinnati, GIFT • Establish clinical and academic partnerships to _____	
Integrate genetics and genomic into all levels of nursing educational curriculum ***Establish Clearinghouse of Educational Resources and tools*** ***Develop educational resources and tools*** • Adapt/adopt modules that are already available that are standardized, user-friendly • Assemble existing modules that are amenable to dropping into existing courses-identify gaps and focus development work to fill gaps • Prepackaged classroom resources • Use pod casts/distance learning, simulation • Interactive session from successful programs that integrated genetics and genomics into the curriculum • Distribute the competencies to all schools of nursing • Cross school seminars • Expand the competencies with learning outcomes and practice indicators and case scenarios • Webinar in genetics and genomics • Complete ***needs*** assessment within Schools of Nursing • Look at the NCHPEG algorithm for evaluating materials. • Establish genetic/genomics tool kit for faculty • Develop introductory package on genetics/genomics • Co-teach courses with other schools of nursing that have the resource. More cost effective to pay for licensing fee as opposed to having to hire faculty that don't exist. (Collaborative Model). ***Establish requirement to include genetic/genomic principles as a component of accreditation***	

• Integrate genetics/genomics principles into American Association of Colleges of Nursing (AACN) Essentials and National League for Nursing Accrediting Commission's (NLNAC) educational standards	
Develop genetic and genomic publications targeted for nursing faculty • Ideas for publications include: ⇒ Model curriculum integration ⇒ Framing case studies ⇒ Including genetics/genomics in clinical context	Publications in press in faculty targeted venues

GOAL: Regulation/Quality Control

Genetics and genomics is included practice content on assessments of quality healthcare outcomes.

Strategy	Outcome Measure
Incorporate genetics and genomics into accrediting standards o Review broad scope of academic and related organization accrediting bodies (e.g., American Association of Colleges of Nursing (AACN); National League for Nursing Accrediting Commission (NLNAC); Commission on Collegiate Nursing Education (CCNE); Council on Accreditation (COA); American College of Nurse-Midwives Division of Accreditation (CONDOA) • Review broad scope of provider organization accrediting bodies (JCAHO, CMS, CHAPS, CARF, HFAP, State bodies, etc) for inclusion ⇒ Provide copies of the competencies to these organizations • Establish ongoing dialogue with ICN regarding internationally educated nurses	Revision of AD, Baccalaureate, Master's and DNP Essentials Revision of NLNAC Standards and criteria Core measures and standards that incorporate items supporting genetics/genomics
Include genetic/genomic competencies on NCLEX ***Educate/influence key stakeholders: State Board Members, State legislators, public (Leapfrog, consumer publications, March of Dimes, Robert Wood Johnson Foundation, Juvenile Diabetes Research Foundation)*** Consider what regulations govern Federal and Territorial entities • Strategize for inclusion on 2010 test map • Determine variation from state to state • Identify "bodies of influence" (e.g. lobbyist, academic or regulatory committee(s), recognizable public figure). • Professional associations with a focus on certification exams • Draft Position papers for progressive States • Develop Fact Sheets with talking points for Board members, legislators, and public: focus on impact related to safety, social implications, preventive health, cost savings/ business case • Conduct national conferences and networking calls ***Increase communication with National Council of State Boards of Nursing*** ***Increase communication with State Boards of Nursing*** • Providing stories that illustrate public protection and safety emphasis • Ask the Genetic Alliance to work with the State Board to get a lay member assigned to the board • Identify a champion nurse in each state for follow-up once the competencies have been disseminated • identify key areas (hospitals within specific states) with the intent to communicate genetic content regarding job descriptions and orientations (i.e., Mayo) • Obtain outcome data of impact of genetics and genomics on nursing • Work with State Nurses Associations and collaborate with specialty organizations to go to state boards and emphasize public protection and safety, using case studies. Show how a nurse who was not prepared well in genetics made safety errors, then discuss how genetics is integrated in nursing practice – again emphasize family history as the implementation tool for every practicing nurse (cardiac conditions, allergies, etc). Re-frame 'genetics" as an essential aspect of nursing care. • Contribute to "Issues & Trends" course, Future of Healthcare for NCLEX preparation ***Complete gap analysis for items related to genetics and genomics***	Revised NCLEX exam including essential competencies from Blueprint document Response from each board regarding actions in response to competencies Identify state board champions who support and act on the competencies

• Team with the state boards for grants having to do with research associated with nursing outcomes related to genetics ⇒ current licensing exams • Evaluate current content of NCLEX items on genetics ***Establish genetic/genomic resources for National Council of State Boards of Nursing (NCSBN)*** • Send the competencies to each state board • Identify genetic/genomic experts to apply as item writers for NCLEX	
Influence policy that minimizes discrimination risks and reimburses nurses for delivery of genetic services ***Strengthen Nursing Partnership with Genetic Alliance*** • Ask Alliance to provide stories that illustrate outcomes of nursing practice in genetics Find the champions in the individual states and in Congress who have influenced genetic discrimination legislation. Lobby specific legislators sympathetic to the cause	