MOVING THE CONVERSATION FORWARD

Re-Imagining the Economic Value of Nursing Summit

SUMMARY REPORT | JULY 2024

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OVERVIEW

In today's highly complex healthcare delivery environment, nurses are a key human capital asset to organizations—a profession strengthened by the diversity, knowledge, expertise, and talents embedded in each nurse. Yet, from the financial perspective, nurses are too frequently viewed as overhead whose economic value is measured solely by efficiencies and cost reductions. This view undervalues nurses and leads to nurse understaffing, turnover, burnout, and ultimately poor patient outcomes. A new vision of the economic value of nursing is urgently needed that realigns nursing's value with its fundamental contribution to positive patient, organizational, and societal outcomes.

The "Re-Imagining the Economic Value of Nursing Summit" was held on April 16, 2024, at Merriweather Lakehouse Hotel in Columbia, Maryland. Sponsored by the American Nurses Association (ANA) Enterprise/American Nurses Credentialing Center (ANCC), this Summit sought to move conversation forward on making visible and leveraging the economic value of nursing to organizations that employ nurses across the US healthcare system. Participants were selected for invitation to the summit to promote diversity of expertise in economics, health system and professional nursing organization leadership, health equity, health services research on economic value of nursing, and health policy.

Participants were provided in advance as preparatory materials a new proposed model for the economic value of nursing—"The Nursing Human Capital Value Model" (Yakusheva, Lee, & Weiss, 2024)[1]—that focuses on the organizational economic value of nurses as a human capital asset in the US healthcare system.

The summit was structured in six sessions focused on the economic value of nursing through economics, operational, health equity, social/ethical, measurement, and policy lenses. Central to the Sessions was introductory framing by the summit co-leaders, reflections on the session content by 2 or 3 invited respondents, and roundtable discussions with whole group summarization.

Recommendations by summit participants will be formatted into a call to action to include education of nurses and stakeholders, measurement strategy, and policy.

1 Yakusheva, O., Lee, K. A., & Weiss, M. (2024). The Nursing Human Capital Value Model. *International journal of nursing studies*, 160, 104890. Advance online publication. https://doi.org/10.1016/j.ijnurstu.2024.104890

BACKGROUND

The Impetus for the Summit

- In the US and across the globe, the majority of nurses are employed in healthcare delivery systems. Healthcare systems and organizations—defined broadly as any configuration of one or more organizational entities (from a single outpatient practice to large multi-entity systems) that produce healthcare services and operate across the continuum of healthcare settings (from ambulatory to inpatient to long-term care) and healthcare markets (from for-profit to not-for-profit to public)—are complex economic systems operating in resource-constrained, highly regulated environments.
- Nurses are the largest group of employees and represent both substantial investment by healthcare organizations and substantial labor costs. The value of nursing/nurses is well recognized by consumers of health care; nurses themselves recognize the moral-ethical imperative to positively impact the lives of persons at the individual, family, community, and societal levels. However, the economic value of nurses to systems that employ them is not well understood.
- For the past two decades, the quality-over-cost equation has been used to quantify nursing's value and to inform organizational priorities, human resource strategies, and resource allocation decisions toward nursing. Under value-based care, the economic value of nurses has been interpreted primarily through the lens of efficiency and cost-effectiveness in producing patient outcomes and cost reductions.
- Yet, the "quality-over-cost" equation does not incorporate the fundamental economic principle that production of high-quality, equitable health outcomes cannot be achieved without sustained and substantial investments in nursing. This simplified view of nursing's economic value to health care has downstream consequences including:
  - Minimally acceptable nursing quality standards as a tradeoff for cost reduction.
  - Lack of support for adequacy of staffing, professional development, and innovations in value-added care that improve both quality and cost outcomes that benefit the healthcare organization.
  - Limiting recognition of nursing as a high-valued profession with appropriately aligned compensation, direct pay for nursing care, and investment in the nursing workforce.
- Novel, more expansive thinking, conceptualization, and measurement of the economic value of nursing to healthcare organizations are, therefore, needed. The new approach must:
  - Explicitly recognize the relationship of investments in nursing human capital, practice environment, and value-added process of care to production of high-quality patient outcomes and associated organizational economic outcomes.
  - Allow for a quantification of nursing's economic value and the return on investment (ROI) in nursing care.

- Develop novel approaches to reinvestment of nursing's economic value within healthcare organizations in nursing human capital and practice environment.
- Inform future research on nursing's economic contribution as a requisite for long-term sustainability and growth of the nursing profession.

Purpose of the Summit

Although the nursing workforce is paramount to improvements in consumer and societal quality, efficiency, and access in health care, the cost of nursing labor is borne by healthcare organizations that employ them. In today's value-based, resource constrained global healthcare economy, a strong economic case is a requisite for organizational and government investment in the development, retention, growth, and well-being of the nursing workforce.

The purpose of this Summit was to discuss strategies for improving, advancing, and promoting the visibility and impact of nurses' economic value to healthcare systems, payors, and the public. Influential leaders in nursing, economics, health services research, and policy were invited to share their insights into the conceptualization, measurement, and policy related to the economic value of nursing/nurses. This high-level summit aimed to create the impetus for growing and leveraging nursing's economic value in support of the nursing profession who provide healthcare services to the nation and the global community.

Goals of the Summit

- To bring together leading nursing and allied scientists and policy experts to envision a path forward for building a scientific basis for the economic value of nursing/nurses, with a focus on explicating the economic value of nursing/nurses within US healthcare systems of care.
- To review, reflect, critically evaluate, and contribute to a new conceptualization for the economic value of nursing and make recommendations for measurement.
- To identify strategic priorities for moving forward an agenda for growing and leveraging the economic value of nursing to stimulate investment and reinvestment in the nursing profession.

SETTING THE STAGE

Marianne Weiss, DNSc, RN
Summit Co-Leader, Marquette University College of Nursing

Re-Imagining the Economic Value of Nursing

- An improved understanding of the economic value of nursing is needed to:

1. Inform healthcare delivery organizations across healthcare settings that investing in nursing human capital (e.g., hiring and retaining staff, training, providing positive work environments) generates a positive organizational return on investment (ROI) and not just a cost to the organization.
2. Inform and educate nurses that, through their human capital knowledge and attributes, they not only produce high-quality equitable health outcomes but also generate a positive economic value to the organizations that employ them.

- In June of 2023, ANA Enterprise engaged Drs. Yakusheva and Weiss for a 2-year project on the Economic Value of Nursing. At the time, ANA Enterprise/ANCC were developing a strategic agenda around the economic value of nursing, with the following goals.

1. Increase the visibility of nursing's value contribution to the global healthcare economy
2. Encourage recognition of nursing as a revenue-generator, not just a labor cost within healthcare systems.
3. Advocate for investing in the nursing workforce commensurate with nurse's economic value contributions.

- The action plan involved funding an initiative to develop a conceptual model of the economic value of nursing and to test the feasibility of using the model to guide research that demonstrates the economic value of nursing.
- Important to this process was engaging diverse perspectives within the profession on the conceptualization and measurement of the economic value of nursing and in setting strategic priorities for moving forward.

Historical Perspective

- In 2007, an Economics of Nursing Invitational Conference was convened by RWJF. To put the timing in context, it was a time of another significant nursing shortage, high turnover, and severe financial constraints on hospitals.

  Three key questions were addressed.

1. How can we make a "business case" for improving and maintaining high-quality nursing care?
2. Should public and private reimbursement systems specifically account for the intensity of nursing care, and if so how?
3. What are the challenges and directions for nurses in pay-for-performance (P4P)?

In the discussions, there was widespread recognition of a misalignment of benefit and payment incentives in support of a business case for nursing. This misalignment was evident in the societal net savings from higher RN staffing contrasted with the net cost to healthcare organizations from higher staffing levels. To correct this misalignment, participants acknowledged the need for improving measurement of nursing care and costing of nursing care services as well as payment system changes.

- Fast forward to 2024 — where are we?

1. Continuing misalignment—increased staffing levels benefit patients and payors but present a financial burden on the healthcare organizations that employ nurses.
2. Nursing intensity measures have proliferated and are anchored in the task nurses do, not risks nurses manage and outcomes they produce. The work of nurses is not linked to payment, making nursing's value contribution invisible within payment models.
3. Pay for performance—many performance indicators are attributable to nursing quality, but performance rewards are small relative to overall organizational budgets and not returned to nursing.

Why refocus on the economic value of nursing now.

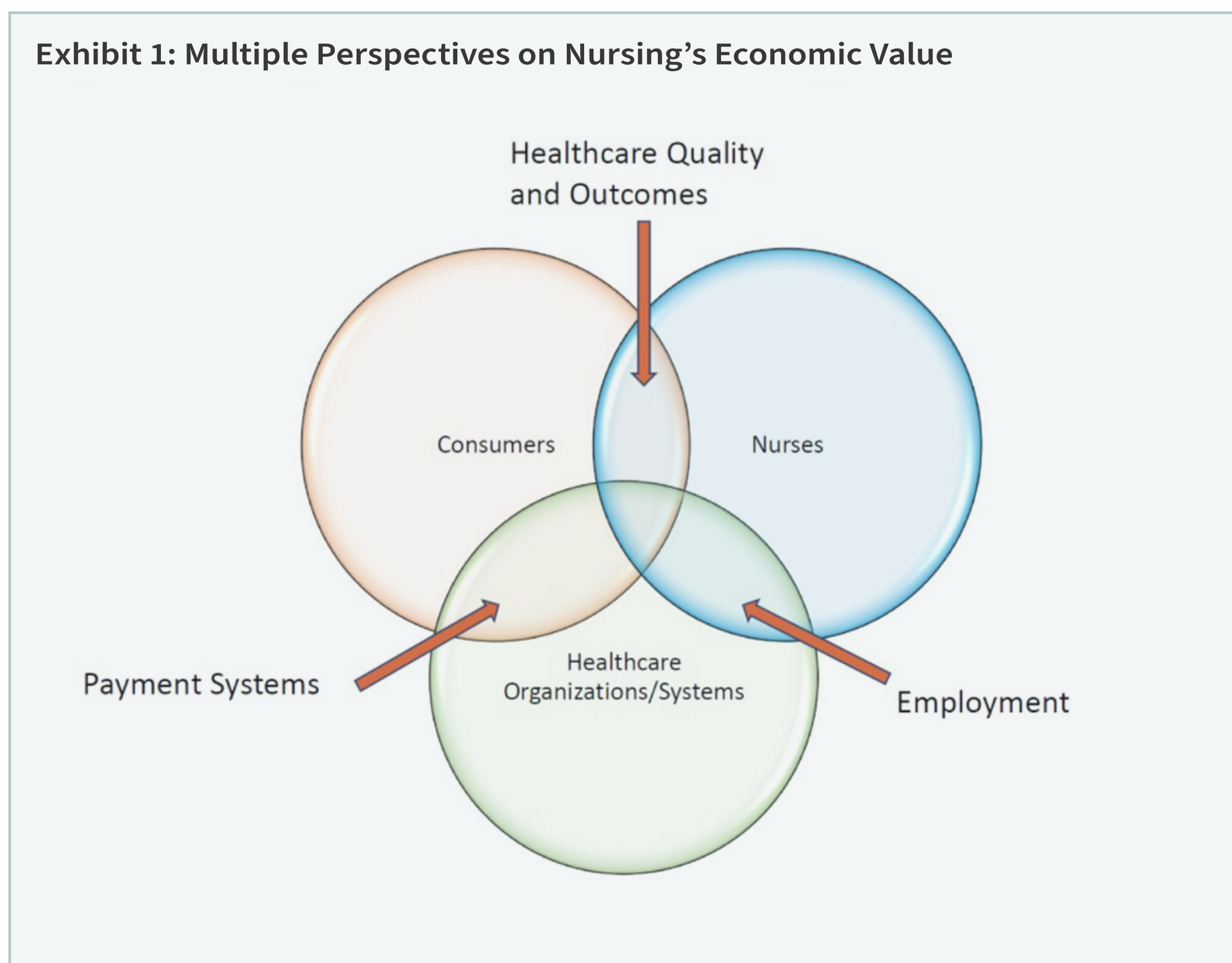
- We have come out of a healthcare crisis (the pandemic) with a continuation of stress on hospitals and nursing staff.
- COVID-19 dramatically increased hospital costs and reduced or eliminated healthcare organization profits. Staff were stressed to the brink and many left the workforce temporarily or permanently.
- Despite increases in nurse salaries post-pandemic, nursing salaries have not kept pace with inflation. Over the past 12 years, the wage gap between RNs and nursing support personnel has narrowed while it has increased in relation to other healthcare professionals.

Multiple Perspectives on Economic Value

When we think about the economic value of nursing, we can view it through multiple lenses. They are not mutually exclusive. Imagine a Venn diagram with three overlapping circles representing consumers, nurses, and healthcare delivery systems.

- At the intersection of the consumer circle and the nurse circle is healthcare delivery and consumer and nurse outcomes.
- At the intersection of the consumer circle and the healthcare system circle is the payment system that pays hospitals for services received by consumers on consumers' behalf.
- At the intersection of the nurse circle and the healthcare system circle lies an employment relationship between nurses who provide care and organizations that pay nurses and create environments for nurses to participate in the interprofessional care delivery process.

Exhibit 1: Multiple Perspectives on Nursing's Economic Value



Nursing's Value Within Organizations That Employ Nurses

- This summit will focus on the value of nurses within healthcare systems that employ nurses. These systems can be hospitals, ambulatory care settings, integrated health systems, public/governmental and private healthcare settings. Most nurses have an employment relationship with some kind of organization (though not all).
- While not totally independent of the other perspectives, we must recognize that the value relationship between employed nurses and the employing organization is a prerequisite for achieving value to consumers and payors.

Quality and Economic Definitions of Value

- Quality has been the predominant basis for value definitions in health care for the past 25 years. Consumers value quality of care and quality outcomes. Healthcare organizations value nursing as a labor resource in the production of quality of care, effectiveness, harm avoidance, and safety.
- Economic value can likewise be defined from a consumer and healthcare system perspective. We are focusing in this summit on the economic value of nursing within healthcare organizations. We believe this perspective can be mutually beneficial to nursing and to the organizations that employ nurses.

SESSIONS

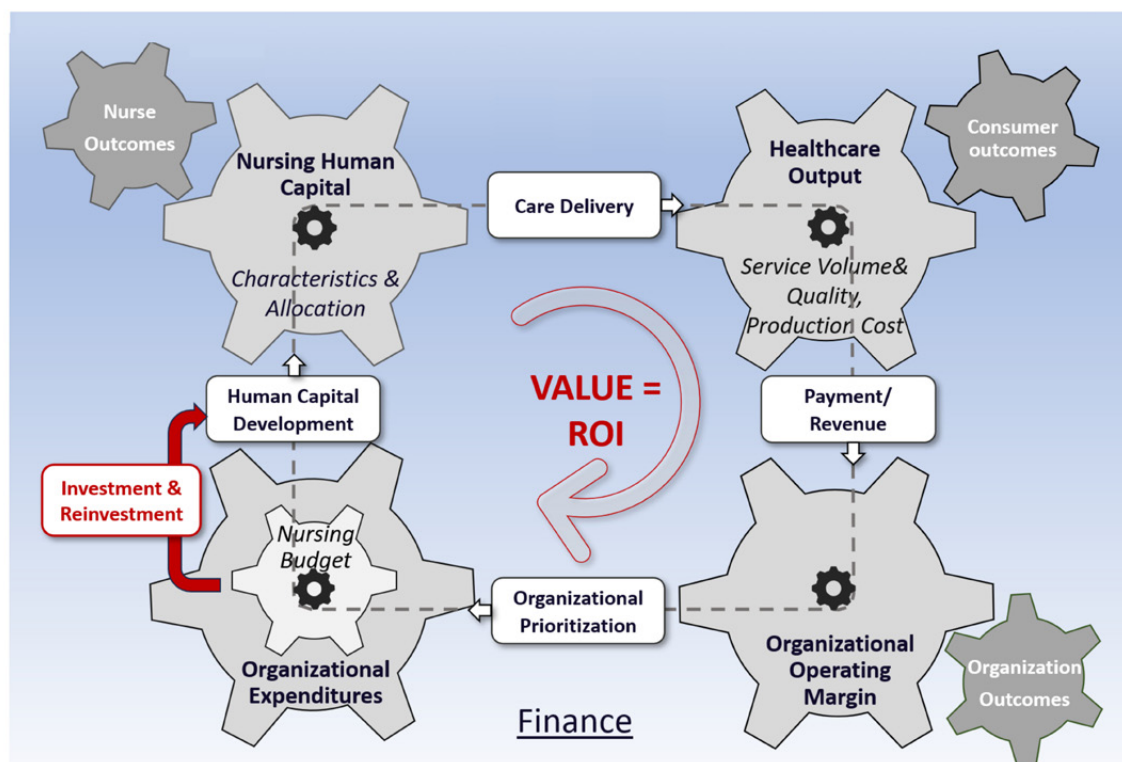
Session 1: The Imperative for 'Re-Imagining the Economic Value of Nursing/Nurses'

Session Leader: Olga Yakusheva, PhD, MSE, FAAN(h), Summit Co-Leader
Professor, The Johns Hopkins University School of Nursing

The topic of this session is an overview of the economist's perspective on the economic value of nursing. In this session economists and leading experts in nursing discussed a new Nursing Human Capital Value Model.

- Ongoing healthcare reform is shifting the focus of healthcare delivery organizations and systems beyond the process of care, to patient outcomes and costs.
- Accordingly, the economic value of nursing has been defined as improving patient outcomes and reducing the cost of care delivery.
- In the era of value-based care, nurses must adopt a value-informed lens to nursing. Value-informed nursing practice and leadership means striving to achieve high-quality patient outcomes in a way that minimizes the use of healthcare resources.
- The societal/consumer value of value-informed nursing is well-recognized—yet, the economic value of nursing to the organizations that employ them is currently poorly measured and understood.
- Across our entire healthcare delivery ecosystem—from community organizations to outpatient clinics to long-term care and acute care facilities, from private to publicly owned organizations, and from market-based to government-run healthcare economies—organizations that employ nurses underestimate and under-value nurses' role in the revenue-generation cycle.
- Misunderstanding of nurses' economic value leads organizations to use nursing budget reductions as a cost-minimization strategy, with the intent of retaining high-quality outcomes while reducing cost of care. However, persistent issues such as nurse understaffing, burnout, and turnover threaten healthcare systems' capacity to deliver the quality, equitable, affordable patient care that the public requires.
- Exhibit 2 presents a new Nursing Human Capital Value Model. Grounded in the economic theories of production, human capital, and value, we propose that nursing is a value-adding human capital asset to organizations, and explicitly link nursing staff characteristics and allocation to the production of healthcare quality and volume output and organizational financial outcomes.
- This new Nursing Human Capital Value Model, presents a nursing-centric cycle of value creation: nursing human capital (who nurses are) contributes to nursing care delivery (what nurses do) and enhances the output of healthcare services (consumer access) and quality (consumer outcomes); improved service output and quality in turn drive organizational reimbursement revenue growth; completing the cycle, organizations reinvest earned revenue in nursing, further propelling the cycle's continuation.

Exhibit 2: The Nursing Human Capital Value Model



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- This innovative model, which is applicable across health systems financed through both governmental and private/non-governmental payor sources, highlights that investment in nursing human capital development is essential for sustainable value generation, identifying opportunities for optimizing nurses' contributions to the value cycle.

Exhibit 2: Nursing Human Capital Value Model[2]. The model represents the integrated production and financial functioning of the healthcare system, reflecting a cycle of value generation from investments in nursing human capital to improved societal, organizational, and nurse outcomes, to re-investment back in nursing.
Two invited respondents were asked to consider the following questions:

a) How does the Nursing Human Capital Value Model fit with your current conceptions of nursing's economic value? What might be missing and what other considerations should be included?

b) What opportunities do you see for enhancing (or making visible) nursing's economic value within the healthcare and/or payment system? And what will be the challenges?

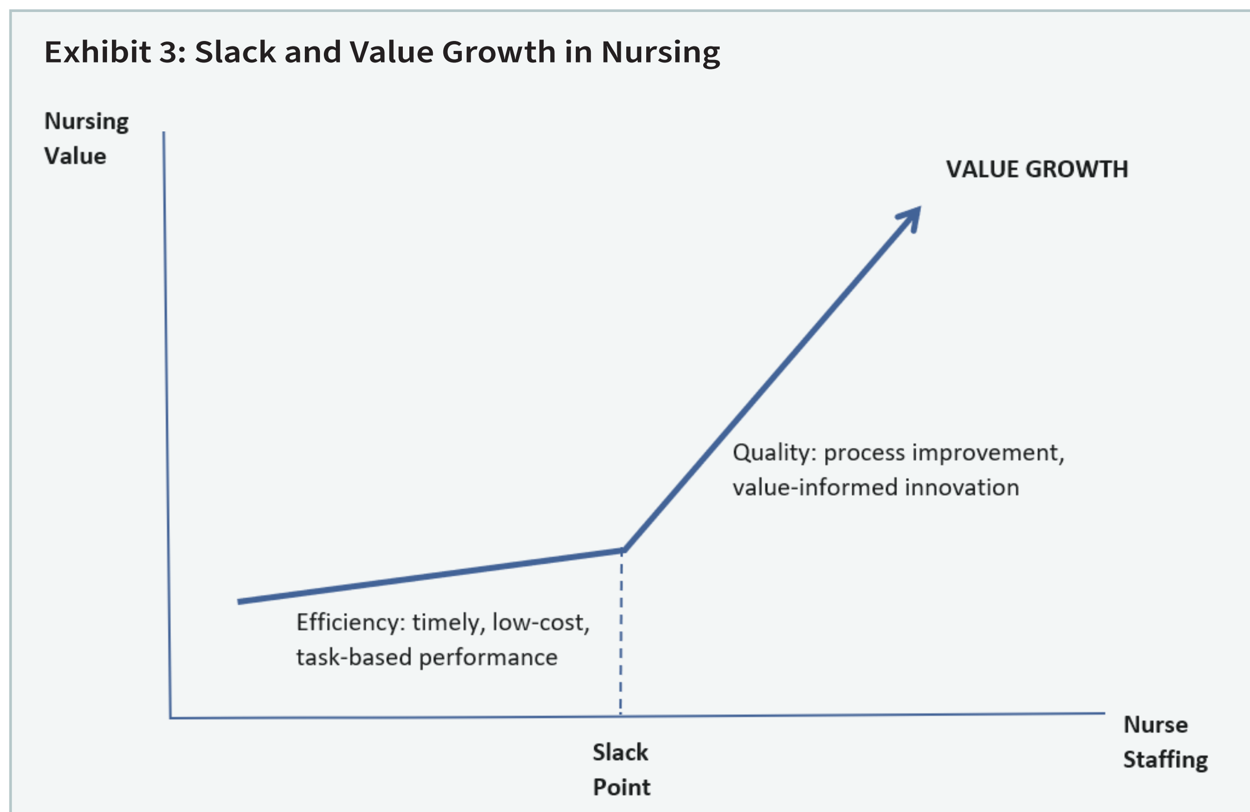
c) Is there anything else that you would like to add?

2 For a full description of the model and definitions of concepts, see Yakusheva, O., Lee, K. A., & Weiss, M. (2024). The Nursing Human Capital Value Model. International journal of nursing studies, 160, 104890. Advance online publication. https://doi.org/10.1016/j.ijnurstu.2024.104890

Invited Respondent: Lori Melichar, Ph.D.; Senior Director, Pioneering Ideas for Equitable Future Portfolio; Robert Wood Johnson Foundation

- To the question, how does the Nursing Human Capital Value Model fit with current conceptions of economic value, we are still 20 years later trying to make the case for nurses. Nurses leaving the workforce from feeling not resourced or permitted to provide quality of care patients deserve is not a new phenomenon—organizations are beginning to recognize investment in nursing staffing and human capital development as a solution (e.g. wellbeing, equity).
- We thought evidence would change decisions about the value of nursing. The new trend is non-evidence-based programs. What might be missing? We need to consider evidence but share hunches, innovate and experiment with pioneering ideas, and encourage people to take risks.
- Nurse value increases for healthcare organizations with the number of nurses. I have a hunch that must be increases beyond the point of completion of required work in the shortest, least costly way. If we provide nurses some “slack”, i.e. time to think, breathe, talk to colleagues, share hunches, solve problems they’re identifying—beyond that “slack point”, value would increase more precipitously.
    - The 2010 Future of Nursing report highlighted the need for nurses to be full partners in health care—but this needs to be done outside of nursing, not just nurses articulating their own value and advocating for themselves. Nurses need a wide range of allies—consider the value of allyship with innovation and DEI health equity communities.
    - Dr. Melichar shared websites related to pioneering ideas:

Exhibit 3: Slack and Value Growth in Nursing



- RWJ Pioneering https://www.rwjf.org/en/about-rwjf/how-we-work/learning-and-evaluation/pioneering-ideas.html
- Maker Nurse makerhealth.co https://makerhealth.co
- Tools for innovation: socialworkfuturelabs.org

Invited Respondent: Jack Needleman, PhD, FAAN; Professor, Health Policy and Management; Professor, Nursing; University of California, Los Angeles.

- The Nursing Human Capital Value Model is a nice framing of human capital and how value is enhanced by a well-educated workforce.
- Conversations about the value take place within nurses and friends of nursing and also outside of nursing. Within nursing there is an understanding of the scope of services nurses provide and demands for expertise; outside, none of that understanding applies. Every conversation needs to start with the assertion of what the nurses work entails and its complexity, and the need for expertise and time required to do that work—nursing doesn't do that well.
- Production function needs to be highlighted in any value model. Nurses are personnel and a cost center. Nursing is the largest, most costly, and critical service. So a major question is; "What do personnel need to deliver the service well?". The Nursing Human Capital Value Model looks at mix of inputs (labor/non-labor) to optimize outputs (services, patient health) but the production itself and what goes into the production (for nursing: management, workflow, work content, use of technology, work as process, people interactions in healthcare teams) is implicit within a global care delivery concept mediating the input and output. The complexity of production needs to be brought more fully into the value model.
- The current approach to value is change of output over the change in inputs. Patient outcomes (such as length of stay, adverse events) get costed and looked at in relation to the cost of nursing and how much cost is saved by avoiding bad outcomes. Better RN staffing adds value from the patient perspective, but since this value is not realized or monetized by a hospital, it does not necessarily enter into hospital staffing decisions. In cost-effectiveness terms, higher RN hours is a "more for more" decision, spending more to realize more value, which from a patient perspective is worth it. But many hospitals, looking only at their costs, opt for "less for less". We need to make clear this is NOT okay.
- The focus of the model on nurse economic value within healthcare systems should not ignore value to patients. Conversations about value need to make the case explicit that more nurses achieve the outcomes patients expect—shorter length of stay, avoided negative outcomes, quality of care (again, more for more).
- Issues of affordability will arise in conversations of value. Nursing needs to be part of conversations, that are also inclusive of patients and corporate leadership (c-suites). The healthcare system has to strive for high value care. Transforming care at the bedside (RWJF initiative) was about improving the work of nursing, but this can only happen with 'slack' and a workforce with the expertise to do it.

Session 2: Reflections on the Economic Value of Nurses within the US Healthcare System

In this session, two Chief Nurse Executives provided their reflections on the conceptualization of economic value of nursing from a human capital value perspective. Their reflections were followed by roundtable discussions.

The invited respondents were asked to consider the following questions:

a) How does the Nursing Human Capital Value Model fit with your current conceptions of nursing's economic value, specifically nursing as human capital versus nursing as a human resource cost?

b) What are we missing in the Nursing Human Capital Value Model?

c) Healthcare system operating margins can be augmented by nursing through cost minimization or avoidance, or by revenue generation. What opportunities do you see for enhancing nursing's revenue-generating potential?

Invited Respondent: Sharon Pappas, PhD, RN, NEA-BC, FAAN; Chief Nurse Executive, Emory Healthcare.

- Dr. Pappas' vision is that the organization will succeed because of nursing. The Nursing Human Capital Value Model provides CNOs with a direct line of sight to the benefits nurses bring to healthcare organizations.
- There are 3 key parts to nursing human capital: numbers, knowledge, and autonomy. Nurses tend to think of themselves as numbers post-pandemic—I have 6 patients. If we're not careful then this is where dialogue stops. We need to shift perspective by adding knowledge to the numbers (not just about nursing core knowledge, but also emotional intelligence and team knowledge [working with other people and departments]). The number of nurses at patient care level doesn't matter if they don't know how to do their work or do it well. It is nurses who should define their autonomy, not everyone else. If we are working in a constrained environment limited by structures or processes, then we fail to achieve expected clinical and financial outcomes.
- We really have to abandon thinking about nurses as input cost (old fee-for-service financial model), but rather about what they contribute to the outputs, direct costs, revenue impact, and also net operating income, and value achievement).
- Nurses can reduce the direct cost. In a study (Pappas, et al., 2015)[3] using a staffing assignment model based on measured patient risk that reduced the number of at-risk patients per nurse, adverse events decreased thus the direct cost from patient adverse events was reduced by more than $2 million over a 2-year period.
- Missing from the Nursing Human Capital Value Model is the context of work: how nurses actually interact with each other and all clinicians; how they perform the work of nursing? Context is important to know and consider in order to optimize the work of nurses. If this

3 Pappas, S., Davidson, N., Woodard, J., Davis, J., & Welton, J. M. (2015). Risk-Adjusted Staffing to Improve Patient Value. Nursing economic$, 33(2), 73–79.

economic model can be modified with contextual points of nursing (how we lead and interact, how we make decisions, does our professional practice include autonomy), then it will be good fuel for better demonstrating nursing economic value and better patient outcomes.

Invited Respondent: Maureen Chadwick, PhD, RN, NE-BC; Senior Vice-President and Chief Nursing Officer, Ascension Michigan

- Healthcare systems can't continue operations without nurses. Across the health system, the focus post-pandemic is on recruiting and retaining nursing talent. Investing in nursing talent and teaching nurses the linkages of their practice to quality and safety, operational rigor and consumer experience is powerful from an engagement standpoint. Each of these constructs are value metrics.
- Our system's guiding principles support the economic value of nursing:
    - The work of nursing (Jackson et al., 2021, p.1)4: Physical, emotional, cognitive, and organizational labor.
    - Nurse well-being (Patrician et al, 2022)5: Nurses' positive evaluation of self and contribution to the work of nursing; being the best possible with the ability to adapt to and overcome adversity to the extent possible.
    - Value-informed nursing (Yakusheva et al, 2022, p.212)6: Practice that consistently incorporates the considerations of both outcomes and cost of resources required to achieve the outcomes in clinical decision-making.
- A strategy for successful RN engagement to drive value is having a leadership structure with a focus on mentoring and creating a learning organization rather than administering.
- As Jack Needleman stated: "You can't do less for less." Investing in nurses to achieve organizational outcomes includes retention strategies such as: creating an EBP academy leveraging Melynk's work that nurses who work in an EBP rich environment demonstrate intent to stay, research scholars and writing for publication, tuition reimbursement and career advancement, nurse affinity groups, nurse leader structure, nurse driven protocols, student nurse interns, nurse residency, nurse fellowships,
- Measurement of investments in nurses and nursing care delivery to achieve effective care, equitable care, and safe care are key indicators of the economic value of nursing. During the COVID-19 global pandemic, approximately 40,000 travel nurse positions opened across the United States creating a one-way valve out of acute care facilities. Organizations quickly realized that their footprints would have to contract without adequate nursing resources.

4 Jackson, J., Anderson, J. E., & Maben, J. (2021). What is nursing work? A meta-narrative review and integrated framework. International journal of nursing studies, 122, 103944. https://doi.org/10.1016/j.ijnurstu.2021.103944

5 Patrician, P. A., Bakerjian, D., Billings, R., Chenot, T., Hooper, V., Johnson, C. S., & Sables-Baus, S. (2022). Nurse well-being: A concept analysis. Nursing outlook, 70(4), 639–650. https://doi.org/10.1016/j.outlook.2022.03.014

6 Yakusheva, O., Rambur, B., & Buerhaus, P. I. (2022). Value-informed nursing practice: What is it and how to make it a reality. Nursing outlook, 70(2), 211–214. https://doi.org/10.1016/j.outlook.2022.01.001

- What's missing in the model: My doctoral work was on the lack of diversity in professional nursing and what is missing from the model is the need to promote allyship with our colleagues of color and intentionality with respect to the ANAs work on eliminating racism in nursing. Additionally, how might we look at the impact of social vulnerability index with respect to where resources are directed to promote equitable outcomes in this model.

ROUNDTABLE DISCUSSION

Moderated by: Marla Weston, PhD, RN, FAAN, Chief Executive Officer, Weston Consulting, LLC

The following questions were provided to guide the discussion: Reflecting on the human capital approach to the economic value of nursing:

a) How do you react/respond to this depiction/design of nursing's economic value?

b) What are the advantages or disadvantages of adopting a human capital model for value within practice and policy arenas?

c) What elements/variables are missing in the current model and what adjustments will more clearly portray nursing's economic value?

Each participant separately wrote advantages, disadvantages, missing components, and adjustments needed to the Nursing Human Capital Value Model. Robust group discussion ensued at each table and with the full group of participants.

Advantages/Strengths: Themes included: human capital perspective, clarity in complexity, clarifies the value proposition for nurses, strengthens nursing, aligns with other healthcare disciplines, policy relevance.

- Viewing nurses as human capital assets moves nursing away from a costly resource to a generator of economic value within the entire healthcare system. This view highlights the importance of investment by all healthcare organizations across care settings in nurse human capital development as a long-term strategy for strengthening nursing's contribution to patient and organizational outcomes.
- The Nursing Human Capital Value Model, based on economic theory and supporting evidence, provides a framework for practice and policy and research that ties complex concepts together to improve understanding of the contribution nursing makes to the value generation cycle within all healthcare systems and organizations.
- The Nursing Human Capital Value Model uses language that is practical and relatable to nurses as well as other professional and business disciplines within the healthcare sphere.
- Clarifying the value of nurses' contribution to patient outcomes and organizational financial outcomes strengthens and unites nursing as a profession, further contributing to the societal benefits and sustainability ang growth of the nursing workforce.
- The 'Nursing Human Capital Value Model' adds strength to nursing's position in healthcare policy discussions as it aligns with the broader national healthcare needs (cost, quality, outcomes, experience).

Disadvantages: Themes included: over-simplified, complex, translation/audience limitations, implementation challenges.

- Over-simplifications:
    - The conceptualization of the value of nurse human capital to healthcare systems and organizations is a major advance, with lots of nuance to be further developed.
    - The model does not account for external factors such as organizational changes/ mergers, payment, regulations.
    - More specification and explanation are needed of the description of nursing work is needed in the 'care delivery' concept.

- Complexity:
    - The model presents an overview of complex concepts, the details of which are not readily visible in the image of the model, which some thought was too simplistic, and others thought was comprehensive but overly complex.
- Translation for a wide range of audiences:
    - The model is not yet self-explanatory. Clear explanation will be needed. The economic language may not resonate with many nurses. Talking points will be needed for consistent communication.
    - This approach at first glance appears to be inward focused on nursing, and particularly acute care nursing. More examples of applicability to ambulatory care and interprofessional care systems are needed.
    - The work of nurses is poorly understood work outside the profession. Those outside of nursing (and many within) are still stuck in 'numbers' view. Reaching broader audiences will require explanation and translation into multiple "languages" of nursing and other stakeholders (particularly CEOs, CFOs, payors) as well as nurse faculty who are preparing the next generation of nurses and nurse leaders.
    - The model seems to be acute care focused. We need to widen the circle to include APRN and non-hospital care. For example, in ambulatory care, nursing plays a big role in capturing revenue-generating work through such activities as Welcome to Medicare Visits and complex care after hospital discharge. Nursing does the education, addresses medication reconciliation, evaluates and documents, and then transition codes get submitted by physicians. It helps with cost avoidance for penalties for readmissions and emergency department visits.
    - Lacking from the discussion was representation from payers and employers. Often, we have nurses talking to nurses about their value, but perhaps we need to hear from payers and employers of how the nursing community can best demonstrate their value and the return on investment to nursing.
- Implementation challenges:
    - The starting point to move the gears of the value cycle is not specified. Reinvesting back into nursing is a major assumption and potential failure point.
    - Current financial and payment systems are built on legacy view of nursing as labor cost. It is difficult to connect this new view of value with the financial (short-term) realities of health care. Without policy changes to reflect this model, systems will interpret/apply inconsistently.
    - Barriers to implementation include the moving target of payment (including unpaid but covered or requisite care), entrenched views, paucity of nursing voices in senior governance and policy decisions, data availability for ROI, operational inefficiencies.
    - Mechanisms to quantify nursing's value including modification of data collection systems will be needed. For example, can organizations realistically quantify what they spend on human capital development? Attention to examining the ways nursing's

work is currently structured in all care settings will be a requisite to full evaluation of nursing's value.

- There may be unintended consequences of disseminating this nurse human capital value perspective. For example, medical staff will be threatened, in some circles "human capital" may be considered pejorative because it dehumanizes, ignoring human strengths, investing in professional development may draw RNs away from the bedside.

Missing elements/Adjustments needed (Note many of the recommended additions to the model are in sub-concepts of the main model concepts and are presented in the Yakusheva, Lee, Weiss, 2024 manuscript)

- Nursing Human Capital characteristics should include the scope, complexity and expertise required to deliver nursing service. Role differentiation (e.g. types of nurses [NP, ambulatory, travel nurses]) by skill set should be reflected in the model. Characteristics can be measured at the organizational and individual level. Leadership knowledge, skills, and experience should also be included. Human caring as a foundational attribute is not included.
- Consider the different levels of nursing experience—new nurses may use more resources and time. Practice authority also varies by state—some states may have restrictions on practice that could impact the outcomes associated with the model.
- In allocation of Nursing Human Capital, the complexity of nursing work and time to do that work should be articulated. The nursing model of care and the intersection with other roles in the healthcare system affects allocation. The capacity, agency, space and time for innovation and visioning, and for Quality/Practice Improvement should be considered in allocation of nursing staff.
- Leadership, mentoring, work environment, culture, decision-making are aspects of Nursing Human Capital Development. Recruitment costs as well as capital improvement and IT costs affect necessary development costs that impact nursing. The Magnet Model had all the ingredients for nursing human capital development.
- The production function of nursing includes service production. The variability of the work nurses do is central to production. Evidence-based practice, innovation, and health team coordination are drivers of value. Nursing's value is evident in the quality, safety, and equity in the production of services to patients and families. Nurses also enhance the contribution of other professionals' value. Solving organizational failures and inefficiencies and mismanagement can add to the intense demands on nurses for the production of valued outcomes.
- Societal, nurse, and organizational outcomes could be better connected in the model diagram to the "output" and "payment" concepts.
- No patient/family/community/direct care nurse input was included at this preliminary stage of model development. Further development would be enhanced by a broad range of stakeholders. Other occupations that have been successful in measuring and articulating value might offer useful insights.

- The model does not yet include strategies for implementation. Considerations include the need for more concrete examples, Diversity, Equity, Inclusion, and Belonging strategies, change management, early engagement of CFOs and data analysts as partners, and costs of implementation and sustainability.
- Nursing's social value could be better reflected in the model, for example, highlighting what patients get out of the increased investment in nursing. Patient/family and community perspectives on nursing's value and the importance of their individual experiences of health need to be elicited and amplified.
- Payment policies are a moving target, raising the question of whether we are reframing the value of nursing within the current payment structure or advocating for change, or both. Clearly delineating nursing revenue would allow for more autonomy in budget allocation for nursing.
- The model must be framed for discussing nursing value outside of nursing (e.g., clinicians, hospital administration/finance, payors, policy makers and regulators).
- Recommendations are needed for amount of investment and reinvestment in nursing to achieve a positive value generation cycle.
- Mandated staffing ratios will challenge the actualization of the model. The mandated staffing ratios are going to raise labor costs associated with nursing and this is going to limit the amount of money that can be invested in human capital improvements. Will the ROI for nurses' value decline or end up in the negative? The concept of investing and reinvesting is great, but if there is no additional money left to reinvest that is going to cause a problem. I really believe that a discussion needs to occur about the use of mandated staffing ratios and its impact on this model.

Session 3: The Economic Value of Nursing Through the Lens of Health Equity

Speaker introductions and background: Marcela Cámpoli, PhD, MHA, BBA, ASQ CQM/OE, Director, Institute for Nursing Research and Quality Management, American Nurses Association Enterprise

Three nurse leaders with expertise and national reputation in equity research and policy were invited to provide their perspectives on the following questions:

a) How should we envision nursing's economic value through an equity lens. (from patients' perspectives, from nurses' perspectives, from organizational perspective)?

b) How does the Nursing Human Capital Value Model implicitly or explicitly include or exclude health equity issues?

c) How can measuring and enhancing nursing's economic value be equitably implemented for patients and nurses?

Invited Respondent: Adrianna Nava, PhD. MPA, RN. President, National Association of Hispanic Nurses, Research Scientist, National Committee for Quality Assurance.

- A diverse workforce needs to be considered a human capital asset for healthcare facilities and systems. A diverse workforce adds value to the health system as new ideas and perspectives are brought to the table.
- There is an opportunity for enhancing nursing's value particularly in the context of acute care. Some health systems or facilities are limited in resources or budget (e.g. to support hiring at the BSN level) and have experienced an inability to attract a sufficient workforce. How do we better integrate health systems that lie within underserved communities—those that often lack resources to benefit from this model?
- The concept of 'Health Equity' is mentioned a bit in the Nursing Human Capital Value Model. Adding social, economic, environmental, and cultural (and political) determinants of health to the model will enhance its value (and advance the profession) by highlighting the major role nurses play in addressing the structural drivers of health to advance health equity.
- Intersecting the Health Equity Framework with concepts of human capital could increase the benefit from the Nursing Human Capital Value Model. For nurses to enhance their value as human capital assets, they must understand the power they have (and conversely lack of power) to implement change. Many don't know how to tap into the power dynamic to elevate their influence, or there are barriers to leadership advancement, especially among racial/ethnic minority nurses. Attention to creating a culture where people have relationships where they feel they belong can rectify the lack of networks, ability to move up, and barriers to leadership many nurses face. Leaders can create a safe space so all nurses can use their voices to improve the work environment, and care delivery.
- The National Commission to Address Racism in Nursing has taught us that nurses are exposed to racism even from peers. Improvement in culture and safety is needed to

advance equity within the nursing workforce. We need to look at the culture within the work environment to improve organizational safety in order to advance equity within the work environment. Do people feel safe to report and are reporting mechanisms working?

- It is important to think of bigger outcomes. We can't see disparities when we look at aggregated data. Process outcomes are steppingstones to improvement over time. Care delivery often focuses on the medical care that nurses provide. Beyond medical care, nursing actions such as care coordination, assistance, and education that address social needs need to be valued as they are critical to evolving care expectations and outcomes.
- We have an opportunity to re-introduce nursing's value to the national conversation on payment, particularly in addressing the social determinants of health. For years, nurses have been providing essential care coordination services and addressing social needs of patients, often documented in narrative form within nursing notes. With new coding systems and reimbursable codes, (e.g. G/Z codes) being introduced, how can we leverage this new infrastructure to capture nursing care, and what quality metrics do we need to develop to highlight our contribution to the health system and enhance our value?

Invited Respondent: Liz Stokes, PhD, JD, RN. Director, Center for Ethics and Human Rights, American Nurses Association Enterprise.

Disparities exist in the current profit-driven healthcare system structure, raising several key ethical questions:

- Should we have nurses become more financially intertwined in a system that is causing health disparities?
  - Nurses have a social covenant—nurses care for everyone. If physicians say they will not take uninsured care, people will come to a place where nurses will care for them. During COVID-19, nurses knew systems would crumble without us. Nurses and healthcare systems need to understand this.
  - Nurses are valued, but should it be through reimbursement that we resolve the undervaluing?
- Do we work with this current system or change the system?
  - If not, will we be left behind?
  - Healthcare systems that don't make a profit, many in underserved communities, are at risk of closure. Data shows that if there isn't a profit then the community or hospital suffers. Communities will need nurses who are committed to providing care regardless of ability to pay, or people will suffer.
- Is this what frontline nurses really want?
  - Currently there are some nurses who are engaged in a "gig-economy", scheduling work in an "uber-like" way. Nurses are able to use an online platform to request the payment rate they want and take time off when they want.
  - Society drives what happens. Some nurses may not have a connection with an organization as they are employees of themselves.

- What are the foreseeable/unintended consequences going forward?
    - There are pros and cons for all changes. The electronic health record (EHR) is an example—it increased documentation burden but also contributed to innovative and changed ways of practicing, which may impact some more than others
    - Missing from the model is that there may not be a connection for all nurses with and employing organization—some are employees of themselves.

Invited Respondent: Beverly Malone, PhD, RN, FAAN. President and CEO, National League for Nursing.

- Previous panels have startled my heart with the urgency to do this work, not just for nursing but for delivery of quality care.
- Nurses are prime examples of equity issues. "You don't have to be a minority to feel there is an issue of equity in nursing". Nurses experience equity issues in many forms.
- Nurses need to value themselves. They have a right to this value. Nurses are incredibly gifted. They have a difficulty saying "I charge…" As nurses, we need to value ourselves internally and convince ourselves to believe we deserve this so we can get the recognition and pay we deserve.

- We need to change the game. We are making a difference, and our value should be part of revenue, not just cost. We need to be re-inventing and re-defining, letting go of change of heart and getting to change in behavior for nurses.
- We need to change the work environment. Working together and value should at least start at the level of how we work with each other and respect each other. Professionals can disagree on many things, but we can all agree that quality care and professionalism are foundations of our practice. “You don’t have to like each other, but you do have to respect each other to work with each other”. This applies at all levels of healthcare organizations from individual, to people, group, unit, and hospital. We cannot have enemies—Leaders, CEOs, heads of nursing are not the enemies of nursing. We all have to combine to solve our equity issues. We must take the opportunity to reimagine and re-dream not just for nursing but for the quality of patient care we deliver.

Additional comments by participant posted in the concurrent online portal:

- Equity MUST be a core concept in this work and continuing inclusion of this concept in driving forward is imperative.
- It is very important to see nursing’s value as an avenue of empowerment and economic opportunity for people of color and other marginalized populations, including women. We must seriously consider the impact of lifting up and driving a pipeline for racial and ethnic minorities within the profession and really understand the impact on patient outcomes when the nurses reflect the communities they are serving.
- The model must account for production of health equity. This can be done through including commitment to nursing ethics as a feature of human capital, and also investing in nursing in a way that is aligned with the profession’s diversity goals. For instance, ending racism in nursing is a goal that will result in more equitable patient outcomes and more equitable entrance and retention of people of color to the nursing profession.
- Health equity should look at how communities can’t access care in communities by nurses as there’s no value seen in community-based nurses; there is little incentive to hire nurses since there is little reimbursement.
- Nursing should take credit for the economic value of equitable care for underserved communities—it saves money if nurses prevent disease versus treat acute illness. Why do people have to get so sick that the hospital is the safety net? Why can we not focus on nurses’ ability to focus on prevention of chronic and acute illness? Are people not worth that?
- We are not room or board and until we are able to bill for our services, we will never be paid. We are taken advantage of because our employers pursue financial goals at the expense of burnout. Payment reform however should be done without risking closures of geographically diverse hospitals. How can we protect both?
- The unknown costs of racism in healthcare work settings have not yet been quantified. We need to move away (deliberately) from “nurse as victim” and “nurse as angel” to “nurse as valued healer”.

Session 4: Putting Nursing's Economic Value in Context

Moderated by: Marla Weston, PhD, RN, FAAN

This was a group session. The participants were asked to talk over lunch about the following questions:

- How do emerging perspectives on economic value of nursing juxtapose with contemporary societal and professional value definitions of nursing's value?
- How do we align nursing's moral/ethical imperative and nursing's economic value? What are the synergies and/or barriers to creating health equity?
- What initiatives can you envision that could address the profession's needs for economic value within healthcare organizations and the moral-ethical-societal imperatives of the discipline?

Each table reported back on their conversation and individual participants were also provided access to an online input form for additional comments.

Below are the themes that emerged from participant comments:

- Goal of the model: We are trying to change the conversation and the context of the discussion, so the conversation is less about the cost and a place to cut costs, more of a place to innovate when nursing is not always on the table to be cut. Are we looking for investment?
- Acting with urgency: If we don't act on what we are doing today and act with urgency, we will lose opportunity and the nursing community's trust. We need to say why it matters. Tweaking the current system is not the way to go!
- Target audiences: At what level are we looking at the changes that need to be made. We can convince each other, but at the level of decision-making, we can talk to CFOs and CEOs. Are we looking at system by system change—or do we need to be looking at policy change and when? There will be angst as we talk about need for new ways of thinking—as we talk about changing the way of thinking, where do we find the stakeholders who will move our arguments forward leading to real change. Contexts beyond acute care need to be included (e.g. long-term care, intermediate facilities who have nurses in different roles).
- Settings in which nurses work—more than acute care. It is important to talk about acute care as it is the biggest employer. This is an obvious place to start, but we need to think about what this model is going to look like for long-term care, intermediate facilities. Physician practices are trying to grow the role of nurses; practices need to learn how to use nurses in higher value ways (more than just triage). New roles and employment settings are emerging—nurses aren't just bedside nurses.
- Reframing how nurses talk about themselves: Part of the change is how nurses talk about themselves. Nurses deserve to be paid for their work. Can they say "Yes, we do charge, this is the code, this is the rate". Nursing is not just a calling; this is a profession. Nurses must stand in their power but also be accountable. Using doctorate title opens doors. Using the victim paradigm in social media creates negative portrayals of nurses.

- What nurses do is often unmeasured: Nurses perform not only in care delivery but also at governance and leadership levels—"nursing's elasticity"—how do we measure the way nurses can support other care functions. The human care piece is often overlooked and hard to measure and pair with economics. Metrics need to be defined nationally. Through ANA leadership, there needs to be targeted research to examine the work of nursing and financial value at the point of service and at aggregate level, and we need to make sure we include ROI in outcomes.
- Value-informed nursing practice: The economic concept of "slack" was insightful to participants, but the terminology needs to be changed to denote that, rather than denoting waste, the time beyond task completion (the frequent metric of patient acuity and of nurse productivity) is when nurses do the higher order processes of their role — planning, communicating, coordinating, managing, innovating. This is the essence professional nursing practice. Most importantly, it adds value to the contribution nurses make to patient care and outcomes. As Dr. Melichar noted, if we provide nurses time to think, breathe, talk to colleagues, share hunches, solve problems they're identifying, value would increase more precipitously. We need to be promoting allocation of this value-adding time within nurse staffing.
- Equity: We won't address equity until we can have inclusion and respect at all levels. We need to look into economic opportunities for marginalized populations. If we ask nurses how to improve equity outcomes, there will be financial benefit.
- Tackling low value, an equity issue: Evidence of waste in healthcare systems abounds. Nurses could embrace tackling waste and low-value care as our cause because it harms people. "Choosing Wisely" (a campaign of the American Board of Internal Medicine Foundation to encourage conversations between clinicians and patients about what tests, treatments, and procedures are needed — and which ones are not) has not worked well to

date. Let's stop paying for low-value care. Nurses spend (waste) extraordinary amounts of time fixing organizational problems (including redundancies and unnecessary activities); changing this could make the nursing role even more valuable. Tackling the list of low-value care, nurses can identify and embrace it as their cause, and at the same time address an important equity issue (low-value care is used more for disadvantaged populations).

- Sustainability: With the growing ESG (environmental, social, governance) movement, nursing has a unique opportunity to position ourselves as vanguard of sustainability.
- Change management: It will be important to change how nurses perceive the economic impact of their work. Clinical nurse specialist and other advanced roles would be good exemplar roles that could be helpful in supporting the framing of the value of nursing. Innovation and change to demonstrate nursing's value must be nurse-led. Nurse executives who lead hospital systems may have unique perspectives to offer about reframing nursing's economic value.
- Multiple perspectives: There is significant variability in how value is perceived by different groups. Consistent principles, definitions, and messaging across different stakeholder groups will be needed. New views on the economic value of nursing will apply differently to each group. Initiatives toward flipping the revenue sharing paradigm will require use of change theories for planning strategies to mitigate resistance and remove barriers to change.
- Skilling up: Nurses must work toward learning about financial and payment systems so that integration of nursing payment codes can happen. Education and skill development of financial acumen and application in practice and leadership should be a core part component of nurse development plans at every stage of their career. For example, are we preparing nurses to be proactive in identifying wasteful practices and to understand how reducing waste can make a quality and financial difference? Nurses should address waste in the system by identifying and solving the root causes. Nurses shouldn't spend time dealing with cumbersome operational workarounds and inefficiencies.
- Where to invest in nursing: What would be a big need? How can 4 million nurses improve health equity and outcomes. Where is the best value for an investment? Investing in core health prevention and screening will require beefing up public health level care and primary care. We are not investing in areas that will prevent tertiary care. Nurse practitioners were built for primary care but are not going there; they are moving to more specialized fields where the money is. Nurses are taking on many new roles in community-based care that can improve access to care, improving both quality and volume of services provided, and revenue generated to support the practice. However, nurses are often the value generator but are not receiving the benefits.
- Re-investment in nursing: Revenue generation for who? Unintended consequences. There is risk of losing frontline nurses when they become revenue-generators for someone else, so the idea of connecting the savings back to nursing is important, otherwise there is nothing in it for nursing and it reinforces corporate benefit from nursing effort. For frontline nurses, there is more value in time spent taking care of patients than time wasted in solving operational failures (workarounds, supply chain, EHR demands).

Session 5: Measuring Nursing's Economic Value: Past and Future

Session Leader: Olga Yakusheva, PhD, MSE, FAAN(h), Professor, The Johns Hopkins University School of Nursing

- Several financial metrics enable us to assess the relationship between the revenue contribution and the costs associated with an input.
- Annualized measures: Profit, also known as net revenue, is one of the most elementary of these metrics. It quantifies the monetary "gain" acquired from an input; profit margin or operating margin expresses net revenue as a percentage of operating costs, thereby providing a measure of the earnings yielded for each dollar spent.
- Long-term measures: Return on investment (ROI) captures the entire projected stream of net revenues attributable to an initial investment. It tells us how many dollars are gained for each dollar spent across the entire lifespan of that investment. Associated with ROI calculations are concepts such as the break-even point—the duration required to recoup the initial investment—and the time horizon—the operational lifespan one can anticipate from the capital asset.
- We must acknowledge our limited knowledge of these financials in the context of nursing. Even basic net revenue figures, while they are standard internally within organizations, are often not readily available in the public domain and rarely examined in research studies. The prevailing perspective perceives nurses predominantly as a cost necessary for producing patient outcomes—a viewpoint aligned with the current 'quality-over-cost" definition of the value of nursing. It is evident that there is a need for redefining this perspective to better capture and appreciate the economic value that nursing contributes to healthcare organizations.
- We need immediate and long-term measures that can be quantified to allow for Value=ROI to be reality; however, by putting forward the fairly standard measure (ROI) the concern is that we do not continue to foster a task-based approach.
- Nurses are profoundly engaged in value-informed practice and leadership, playing a significant role in enhancing the efficiency of the healthcare system by eliminating low-value and redundant practices that do not contribute to patient care. An extensive body of research supports the vital role of nurses in delivering high-quality patient care and achieving superior outcomes.
- On the cost side, we recognize that nursing is a significant share of organizational costs. Nurses represent the largest body of healthcare professionals and are among the highest compensated. The costs associated with employing nurses are well known.
- We are also aware of the potential cost-saving impacts nurses bring to the healthcare system. For instance, nurse practitioners provide a cost-effective alternative to physicians in ambulatory settings. Additionally, evidence suggests that optimal nursing staffing can result in savings for healthcare organizations, for example by reducing patients' length of stay, and for payers by improving patient outcomes and cutting overall costs.
- However, there is less published evidence on the contribution of nursing to organizational capacity to generate revenue. This gap in our knowledge is crucial; in order to reconcile

the financial investment organizations make in nursing with the societal benefits of nursing care, we must gain a clearer understanding of how nursing contributes to financial outcomes. Understanding this aspect of nursing's impact is essential to making a compelling financial case for investments in the field of nursing.

- Drs. Yakusheva and Weiss are currently performing a systematic review of the literature trying to identify and synthesize the state of knowledge on the ROI and the economic value of nursing to organizations—that is, the long-term financial return on investments in nursing human capital. Preliminary observations:
  - By comparison with the broader literature on the contribution of nurses to patient outcomes, only a small proportion examine economic variables (costs, revenues, etc.).
  - Among the studies that do examine nursing-related economic variables, most are incomplete economic evaluations that did not examine/report either the cost of improving nursing human capital or the economic/financial benefit to the organizations. These studies do not allow to calculate ROI or any of the related measures (net revenue, margin).
  - Among complete economic evaluations, very few studies focus on ROI. Most measure net revenue, a few measure margins, very few measure ROI over a period of time.
  - The existing body of literature speaks to high societal value of nursing but is inadequate for informing organizational investments in nursing. More studies are needed to establish a financial ROI for nursing from an organizational and/or health systems perspective.

Two invited respondents were asked to consider the following questions:

1. What opportunities… and challenges… have you encountered in trying to measure nursing's economic value?
2. How readily available/accessible is data to support measurement of nursing's economic value?
3. What data isn't being routinely collected that we will need for future measurement of value initiatives?
4. What key research questions should we be asking to uncover investments in nursing human capital and its impact on organization revenue and operating margins?

Invited Respondent: Karen Lasater, PhD, RN, FAAN; Associate Professor, University of Pennsylvania School of Nursing

- There are a number of opportunities and challenges in measuring nursing's economic value. Production must move beyond cost minimization and be linked to ROI.
- Payment is big piece of the value cycle. While the newest research shows better patient outcomes with more nurse resources, payment to organizations is guided by volume rather than outcomes from care delivered. Pay-for-performance is moving toward value payment, but the payments are arguably too small to motivate change.

- In redefining value, what do we want to be paying for and what is the attribution of payment to what nurses are doing? For the reinvestment component, is it possible to reimagine a world where payments are earmarked to be reinvested into nursing and under the control of the CNO? What if nursing had its own dedicated revenue stream to the nursing budget and decided how it would be allocated toward units? What if it was a nurse-run hospital?
- Measuring if/how much organizations are investing in nursing is difficult at present. It seems organizations do not have a clear idea of how much investment there is in nursing human capital. Several measurement questions arise as we think about measuring economic value in the new model:
    - How to quantify investments in nursing?
    - How do we measure how effective these investments are?
    - How do we measure this total investment?
- How long in the future is/should ROI measured (one year, more)? At what point do we stop attributing patient outcomes to nurses?

- Research questions framed in new conceptualization of nursing economic value could include:
    - Which investments are effective and how are they connected to other investments?
    - What aspects of human capital would confer the greatest returns on investment?
    - Are the benefits of some human capital investments contingent on other investments? Example: staffing benefit depends on good work environment.
    - How is the production function and revenue of other service lines dependent/contingent on nurses? Example—surgeons can't do their work without nurses (and thus can't bill for services without nurses). What opportunities does this present?
    - How does the entrance of private equity in health care influence nursing ROI?

Invited Respondent: Cathy Ivory, PhD, NI-BC, NEA-BC, FAAN; Associate Nurse Executive, Vanderbilt University Medical Center, Associate Professor, Vanderbilt University School of Nursing

- We need to work toward reliably linking patient outcomes to the nursing care the patient received. We should be able to connect/attribute care to the individual nurse or to the aggregate of nurses providing care to a patient. But longitudinally (outside the hospital), at some point should care no longer be attributed to nursing? Maybe not—if we can connect nursing care across care settings and across the lifespan. If we can connect the outcomes to nurses, we can find ways in the future that ROI is linked to nursing investments.
- The cost of inpatient nursing care is currently hidden in the bed rate (and may not be captured at all in the outpatient setting), so we can't discern nursing's direct impact on patient outcomes or the impact of a specific nurse on outcomes.
- A stronger connection with finance colleagues would facilitate conversations related to nursing cost and revenue generation and how nursing can help solve problems. Our IT systems generate so much data, but nursing often has limited access. Even if we access it, how do we make sense of it? There is a need to connect data generated in the context of care (from the EHR) and data captured by other systems, such as Human Resources and Finance. Connecting these disparate data sources requires complex assembly and data cleaning to be able to assess how the contribution of the individual nurse, and the characteristics about the nurse (such as education, certification, and competency) can be matched to patient outcomes. We need to engage with informatics colleagues with expertise in using and reporting on the data generated by IT systems, rather than merely relying on informatics expertise when systems are implemented. There is still a lot of free text data that nurses have been documenting in narrative notes. Text searching tools exist that can go through this data (for example, to identify social determinants of health) and to identify other nursing care interventions and communication among the care team.
- Nurses need to be more involved in conversations about finances and nursing ROI; for example, routinely sharing costs associated with never events (such as falls or pressure injuries) and how reducing such events can be attributable to nursing care. Knowing that

"You saved the organization $x this month with y fewer events than last month" can be empowering and foster nurse autonomy.

- Using a unique nurse identifier (UNI) is necessary to be able to attribute nursing care to an individual nurse. Some EHRs already have placeholders for unique identifiers. The NCBSN ID number is assigned to each nurse upon licensure and can be directly imported into IT systems; this UNI could be used until the nurse receives a National Provider Number (NPI). A unique identifier that is consistent across institutions and states is needed to support research on the value of nursing—this is how we connect data about the nurse data to the work the nurse does.
- In terms of research questions related to economic value, we might not know the current state of nursing work which has changed incredibly since the pandemic. There probably is a need to do qualitative work, including direct observation, of contemporary work processes to learn how individual nurses structure their work. Human factor researchers should be involved in this research to help us design good measurement and outcome strategies.

ROUNDTABLE DISCUSSION

Moderated by: Marla Weston, PhD, RN, FAAN

Roundtable discussion focused on three questions. Each discussion table reported on their discussions. Participants provided additional commentary following these reports.

1. What data should be routinely collected and what standard metrics should be in place or developed to measure nursing's financial outcomes?
    - Data needs
        - Workforce data: demographic data, years of experience, education, expertise, standard retention/turnover, absenteeism, Nurse ID (NCSBN and NPI to be able to track the touch of nursing in patient care).
        - Staffing data: number of nurses, productivity.
        - Wage data: differences within and across organizations.
        - Clinical data: clinical deterioration, at risk patients—clinical risk score versus acuity, nurse-related outcomes, never events, NDNQI, admission/discharge/transfer, patient experience, customer satisfaction.
        - Nurse-level data on nursing interventions (using standard coding such as SNOMED), patient experience and outcomes.
        - Financial data—Cost, Cost avoidance, ROI over time.
        - Organizational data such as for-profit, private equity.
    - Use existing internal (e.g., pharmacies) and external (CMS, Press-Ganey) sources of data.
2. What steps do we need to take to fully capture and attribute nursing costs and revenue directly to nurses and/or nursing service line?

- Think big in developing national standard (e.g. for nursing financial measures of value) and advocating for changes to nursing billing and payment systems.
- Measure specific investment costs to build nursing human capital.
- Connect EHR to cost to claims within and across organizations to attribute financial data to nursing services.
- Replace midnight census with ADT (admission discharge transfer) in financial statements.
- Mirror/model physician credentialing and payment systems
- Culture building: Building trust should be the first part of the conversation on measuring and tracking nursing value.

3. What key research questions should we be asking to uncover investments in nursing human capital and its impact on organization revenue and operating margins?
    - Learning about nurses, e.g., Generation Z nurses, investments that support nurses individually and at organizational level, how nurses see their role in impacting financial outcomes.
    - Learning about nursing work post-pandemic, the gap between optimal and actual care, differences across settings, nurse behaviors that drive positive outcomes, attributable effectiveness of nurse interventions on outcomes, nurse contribution to team-based outcomes.
    - Learning about investment in nursing, what investments make a difference in patient outcomes, the share of revenue going to nursing, the impact of investment in nursing on accountability for outcomes.
    - Learning about ROI, ROI for whom, time horizon for ROI, ROI for investments in nursing human capital development, what nurse behaviors/actions drive organizational ROI, the true cost of nursing (what nursing care is ‘billed’ and how much of nursing care isn’t billed. Are there unintended consequences (missed care- implicit rationing) if costs/revenue/ROI are tracked.

Session 6: Policy Recommendations for Leveraging the Economic Value of Nursing/Nurses

Session Leader: Marianne Weiss, DNSc, RN, Marquette University, College of Nursing

To start our policy session, draft policy recommendations developed in the early stages of the Economic Value of Nursing project presented at the International Council of Nurses Congress in Montreal, Canada in July 2023 were shared with summit participants as a starting point for discussion:

1. Invest in nursing education
    - The full economic value of nursing is demonstrable when there is an adequate supply of nursing human capital to effectively and efficiently run the healthcare engine.

- Integrated academic-practice setting partnerships are needed for career-long educational advancement.
- Educational programming that infuses value-informed clinical decision-making as foundational nursing practice and leadership.

2. Invest in 'Nursing Human Capital' and 'Nursing Human Capital Development'
   - Address nurse staffing.
   - Pay/incentives commensurate with nursing's value.
   - Practice environment: Value-informed care practices and innovative models of care.
   - Work environment: Strengthening nursing through efforts to promote workplace safety, diversity & equity, and well-being.
3. Develop engaged leaders
   - Increase the visibility of nursing's economic value to organizational leaders.
   - Stimulate and grow nursing's contribution to economic value.
   - Negotiate for and lead reinvestment of economic gains generated by nursing back into nursing.
4. Invest in research
   - To quantifying the value of nursing/develop nursing value metrics.
   - To generate evidence on value-improvement interventions, including on full economic evaluation of revenue, cost, and ROI.
   - To test novel value-informed models of care, prioritize care system modifications that simultaneously consider the balance of quality and cost—not quality at any cost.
5. Change policy
   - The only way to leverage the economic value of nursing/nurses is by aligning policies that invest in nursing, rewarding value-based performance nursing care models, and supporting the production of a high-quality practice environment.
   - Payment reform has the potential to alter the relationship between nurses and the organizations that employ them. We identified some key questions that need to be addressed:
     - Should penalties/rewards for quality of patient care and nursing-sensitive outcomes be increased?
     - Should clinician practice environment and wellbeing domains be incorporated into value-based payment systems?
     - Is health care ready for direct value-based payment for nursing care?

Two invited respondents were asked to consider the following questions:

a) Where do we go from here in terms of making visible and leveraging the economic value of nursing within our healthcare system and with those who make policy that impacts our economic value?

b) What hurdles should we expect and how can we overcome them?

Invited Respondent: David Keepnews, PhD, JD, RN, NEA-BC, FAAN; Executive Director, Washington State Nurses Association.

- Dr. Keepnews noted that his organization, the Washington State Nurses Association, is both a professional association and a labor union. He emphasized that, in addressing the changes under discussion, it will be important to involve and listen to unions and have them there at the table.
- Earlier speakers addressed the challenges in systems-level advocacy for approaching cost and revenue issues—for example, how do you look at money to be reinvested in nursing, or how to increase the visibility of nursing services—nursing unions, where they are present, can provide those voice.
- The discussion today has focused a lot on inpatient care, but the model is more broadly applicable. Services are bundled in hospitals and other systems.
- There have been attempts to "cost out" nursing services, but the question always arises as what inputs to include in the calculation. What do you want to use to reflect which aspects of healthcare payment?

- An important caution is that nursing services involve more than tasks and we would want to be careful that the full range of work is reflected, including the cognitive aspects of care, patient education, family education, etc. The situation of the physician hospitalists is instructive—in some systems, hospitalists have been told that revenue generated from their services is not enough to justify their salary because billing is based on the tasks and procedures they perform.
- I have usually been the voice of caution/hesitancy regarding unbundling nursing services and having them reflected separately in healthcare payment. I hear the enthusiasm for that goal and I don't dismiss it. We need to recognize that it would be a heavy lift. Medicare has been bundling payment for 40+ years. If we want to move away from that, it needs to be a long-term change and will need long-term strategies and partners.
- Nurses must speak with one voice. There are some important examples of successful policy advocacy when nursing is unified—defeating the AMA's RCT proposal decades ago; supporting Nursing's Agenda for Health Care Reform in the 1990s; supporting common goals in advocating for Title VIII nursing education funding. If we are to take on the issues we're discussing today, we will need to be unified.
- If we want to make case for payment reform, we need to talk about more than just visibility and fairness. Those are compelling issues within nursing, but not to the public and policymakers. We need to define the problem. If we say lack of investment in nursing is resulting in inadequate care, CNOs for example may not be comfortable saying that.
- We want to emphasize and commit to unity for the long-term while recognizing that there are issues on which we disagree. For example, I know we don't all agree on staffing ratios. We need clear rules of engagement so we maintain collegiality even while we disagree on some things. We need to keep in mind the importance of the long-term goal.

Invited Respondent: Betty Rambur, PhD, RN, FAAN; Professor, University of Rhode Island School of Nursing

Dr. Rambur notes that these are her personal views and do not necessarily represent those of any of her affiliations.

- The first priority in policy is to help nurses learn to be fluent in the language of money and to market the value of their contributions.
- Example 1: in a large undergraduate course on economics/policy/finance, at the end of course, I had all students be interviewed about how they would add value to the organization. All talked about compassion as their value rather than also talking about value as the quotient of outcomes over cost even though we had explored that concept all semester.
- Example 2: Money is not evil, it's a tool. If you don't have appropriate tools, you will not get anything done. Why do hospitals measure CLABSI and readmissions, but not some other indicators of good quality of care? It is part of the measures used that direct payment in Hospital Value Based Purchasing. Students and many nurses don't understand penalties for poor outcomes, such as CLABSIs and readmission. We don't

teach nurses about the importance of the payment piece and its connection to their work.

- Example 3: Nurses in primary care may not understand incident-to billing, its impact on their visibility, and the financial implications.
- The public, too, needs to understand where tax and healthcare dollars are going, for example, federal funding of $18 billion/year on Graduate Medical Education, which disproportionately prepares specialists, and $300 million for nursing Title 8.
- Policy changes needed:
  - Get rid of fee-for-service that rewards volume of procedures but not quality and longer-term outcomes.
  - Ethicist Madison Powers once opined that, until providers have cradle to grave responsibility, we will not have a truly ethical healthcare system. I tend to agree with this. This would create much greater attention to upstream social determinants of health. Population-based alternative payment models are a step in that direction.
  - Adding complexity of production to the consideration of nursing human capital value. Complexity of production necessitates measurement of knowledge, skills, and outcomes. This is essential because we need to know the cost and outcomes of our care. For example, will taxpayers have to pay higher taxes or Medicare beneficiaries more in cost sharing to ensure Medicare sustainability, or can we cut out wasted care? Can nurses take the lead?
  - Modernize the Medicare cost report. Nursing contributions to outcomes are very difficult to discern in the current reports. Nurses are a labor cost and there is little differentiation by skill mix.
  - Performance measures of nursing-sensitive quality outcomes need higher penalties and more sensitive indicators. Hospitals currently don't have enough incentive to improve nursing care—the conversation regarding staffing, especially in nursing homes is "we can't afford to have adequate staffing, or we go out of business."
  - One solution to improving nurse staffing economically, is supporting immigration, but this tends to unfairly impact economically disadvantaged resource-constrained countries and deprive them of nursing care their populations needs. It also can suppress nursing salaries and "crowd out" nurses who are already employed or entering the profession.
  - Redesign care delivery and working conditions in the US so it offers an attractive work setting for all. Move beyond the legacy of payment restriction to nurses and lack of payment for teams. Redirect the money to the services that people need.
  - In payment policy groups such as the Relative Value Unit Update Committee (RUC), nursing has a seat there but at the "kids table" of non-physician group. We need to learn from how medicine handles disputes—they fight over money but do it politely and behind closed doors—not open to the public. They manage to make it appear unified.

- What about a nurse owned hospital. Physicians are pushing to remove some of the restrictions the Affordable Care Act brought for physician-owned hospitals...the self-referral problem, but nurses would not have that problem (or opportunity). Or, perhaps better yet, a fully worker-owned hospital.

ROUNDTABLE DISCUSSION

Moderated by: Marla Weston, PhD, RN, FAAN

Participants were asked to individually write down 5 priorities for moving forward. Participants shared responses in open discussion. The following themes emerged from the discussion: Nursing Human Capital Value Model, proceed with a unified voice, dissemination, education, identify and engage allies, payment reform, research funding, data/metrics, build/elevate nursing's value, protect nursing/nurses.

- The Nursing Human Capital Value Model is an excellent start in defining/depicting nursing value. It should be a platform to have dialogues with key stakeholders to advocate for new investments in nursing human capital and nursing human capital development as well as re-prioritization and reinvestment of organizational revenue toward nursing. The model may be applicable to other health professions. The model framework includes investment in individual nurses and the workforce in general. Policy implications of the model should be highlighted.
- Proceed with a unified voice in leveraging the value of nurses and nursing. A shared policy agenda should be developed among nursing professional organizations and with other healthcare professions, organizational leaders, consumer advocates, and policymakers.

- To advance the model, include representation from payers and employers. Often, we have nurses talking to nurses about their value, but perhaps we need to hear from payers and employers of how the nursing community can best demonstrate their value and the return on investment to nursing.
- Disseminate through awareness campaigns, organizational boards and members, press releases including mainstream press to bolster public support, webinars, talking points, and social media.
- Educate nurses at all levels about healthcare finance, the value of nursing human capital and ROI of investment in nursing. This education needs to begin in pre-licensure.
- Identify, engage, and grow networks across a broad range of allies from nurses and other stakeholders from the grassroots level to nurses in the national organizations and federal agencies.
- Move toward payment reform and lobby for nursing work environment and wellbeing measures to be associated with organizational pay-for-performance outcomes.
- Advocate for research funding opportunities for investigating the economic value of nursing.
- Develop required data elements for metrics of the value of nursing that would be nationally reported (such as Hospital Compare). Develop standardized nursing human capital and human capital development metrics. Advocate for unique ID to track nursing outcomes in all healthcare settings.
- Elevate the importance of this work through strategic planning for next steps toward implementation. Identify institutional practices that build nursing value.
- Protect nursing title (“registered nurse” and “nurse”), roles, standards, safety, well-being, and autonomy through legislation and advocacy

Concluding Remarks and Next Steps

Drs. Yakusheva and Weiss provided a brief wrap up thanking the participants and organizers.

A roadmap for the next steps was also shared, including:

- The Nursing Human Capital Value Model will be adjusted based on the summit discussion. The final model will be included in an upcoming manuscript.
- A summary of the summit will be sent to all participants for feedback.
- A final version of the summit summary will then be posted on the ANA Enterprise website for open comment. An invitation to comment will be sent to ANA members and nursing professional organizations.
- A proof-of-concept study of the Nursing Human Capital Value Model will be undertaken in 2024-2025, funded by the ANA Enterprise.
- The ANA Enterprise will plan for wide dissemination of the Nursing Human Capital Value Model.

POST-SUMMIT COMMENTARY

ANA Enterprise provided the opportunity for public reflection on the Summit Summary. The summary was posted online for a one-month open comment period (August 14, 2024—September 13, 2024). The public comments highlighted the potential value of the summit conversations about reframing nursing as human capital within healthcare organizations and several critical issues.

The nursing human capital value framing was well-received by the large majority of commenters, although many noted a need for more expansive detail and clarity on the underlying economic theories and terminology. While the framing of the Nursing Human Capital Value Model was intended to reflect nursing's value across the range of care settings in which nurses are employed, many felt more emphasis on ambulatory and population health is needed.

The model considers the economic value of nursing as a workgroup with an organization, recognizing the collective contribution to organizational health and financial outcomes; it does not focus on the impact of the individual nurse. Further, taking an organization perspective reveals the economic value of nurses and nursing within healthcare organizations but conceals the patient-centric nature of health care. Several commenters focused on the need to more fully clarify the distinction between who nurses are (their characteristics and competencies) and what nurses do (the complexity of care and services they provide) and how each separately and together impact health, quality and safety outcomes. An important consideration is that nurses often assume roles and functions within health care to fill needed gaps that go unnoticed.

While the term "human capital", a term used in economics, was selected to characterize the knowledge, cognitive capabilities, talents and resources nurses as individuals and a professional group bring to healthcare organizations, it could be seen by some as potentially dehumanizing and appearing to prioritize a capitalistic business case over nursing's moral/ethical commitment and social contract to impact of the health of communities where nursing services are provided. Additionally, there was a concern about the summit not including diverse perspectives (clinical nurses, patients/families, payors) and dissenting/critical voices. There was a strong call for inclusive and equitable policy advocacy, supporting the diversity of the nursing profession and health equity as core outcome metrics. Other commenters spoke of the need to establish financial structures that acknowledge all nurses' contributions and avoid their devaluation by non-nursing professionals.

The importance of research collaborations, precise costing models, and aligning pay-for-performance with high-quality, equitable nursing care was highlighted. Many commenters also underscored the need for a unified nursing voice and the urgency of policy advocacy actions to align nursing's payment with its enormous contribution to patient, healthcare system, and population outcomes.

Investment in all levels of nursing education was noted by many as vital to building a strong nursing workforce and to addressing shortages. Participants stressed integrating economic-focused competencies from the new AACN Essentials, promoting diversity, equity, and fair pay while emphasizing the vast knowledge and compassion of the profession.

SUMMIT PARTICIPANTS		
Name	Credentials	Affiliation
Oriana Beaudet	DNP, RN, FAAN	American Nurses Association Enterprise
Robyn Begley	DNP, RN, FAAN	American Organization for Nursing Leadership
Marcela Campoli	PhD, MHA, BA, ASQ CQM/OE	American Nurses Association Enterprise
Maureen Chadwick	PhD, MSN, RN, NE-BC	Ascension
Kathy Chappell	PhD, RN, FNAP, FAAN	Accreditation Commission for Education in Nursing
Carolyn Clevenger	DNP, GNP-BC, FAANP, FGSA, FAAN	Emory University
Tim Dall	MS	GlobalData
Marianne Ditomassi	DNP, RN, MBA, NEA-BC, FAAN	Massachusetts General Hospital
Karen Drenkard	PhD, RN, NEA-BC, FAAN	AARP Public Policy Institute
Kathy Driscoll	MSN, RN, NEA-BC, CCM	Humana
Rebecca Graystone	PhD, MBA, RN, NE-BC	American Nurses Association Enterprise
Adriane Griffen	DrPH, MPH	American Nurses Association Enterprise
Debbie Hatmaker	PhD, RN, FAAN	American Nurses Association Enterprise
Karen Hill	DNP, RN, NEA-BC, LFACHE, FAAN	The Journal of Nursing Administration
Cathy Ivory	PhD, NI-BC, NEA-BC, FAAN	Vanderbilt University
David Keepnews	PhD, JD, RN, NEA-BC, FAAN	Washington State Nurses Association
Mary Beth Kingston	PhD, RN, FAAN	Advocate Health
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Beverly Malone	PhD, RN, FAAN	National League for Nursing
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Marianne Weiss	DNSc, RN	Marquette University College of Nursing
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