

Intermediate Care Technicians: The Return on Federal Investments of Medics

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ABSTRACT

Introduction:

Over the last 200 years, the “medic” has demonstrated its value at the point of injury care. Unfortunately, when medics leave military service with their medical skills, they have limited direct employment options available to them without added educational requirements. Fortunately, the Veterans Health Administration’s (VHA) innovation of the Intermediate Care Technician (ICT) Program has a solution for that problem. This article will look at the Veterans Affairs’ creation of the ICT Program, investigate its origins, evaluate where it is today through the lens of the WHO Task-Shifting Model for healthcare system implementation, and address the ICT Programs’ potential for tomorrow.

Materials and Methods:

A descriptive, non-experimental research method design was used to collect and analyze the ICT Program’s quantitative and qualitative data.

Results:

Through a decade of quality clinical care, Authority of Veteran Affairs Professionals to Practice Health Care Rule, and comparative evaluation of the WHO Task-Shifting Criteria, the ICT Program will bring incredible clinical value to VHA.

Conclusion:

The VHA ICT Program demonstrates to the U.S. Healthcare System a validated and reliable program to address healthcare worker shortages, reduce healthcare costs, increase access to care, and manage increasing demand for healthcare.

If you can save a life on the battlefield, you can save a life in an ambulance.¹

—Barack Obama, 44th President of the U.S.

Over the last 200 years, the “medic” has demonstrated its value at the point of injury care. From the medic’s origins in 1775 in the continental Army as “Hospital Stewards” and in the U.S. Navy, crew members were assigned to attend to sailors. In this article, “medic” will represent all military service’s medical assets.^{2–4}

In 2012, the Secretary of the Veteran Affairs (VA), the Honorable Eric K. Shinseki, recognized the value of medics and their medical training, created the idea of using medics, and charged the VA to capitalize on their military healthcare experience and employ them at the VA. At the same time, the VA was experiencing a healthcare workforce shortage.^{5,6} Secretary Shinseki saw this as an opportunity to capitalize on “over 10,000 [medics] separating from the military” each year.⁵ This idea created the Intermediate Care Technician (ICT) Program. The ICT Program takes military medics and “employs

their medical skills in a healthcare role, commensurating with their military education, training, and experience without the need for a license or additional credential.”⁷ This is a key and novel aspect of the ICT as it allows these service members the employment opportunity today, not after going back to school for additional education and training. This article will look at the VA’s innovation of the ICT Program, investigate the program’s origins, evaluate where it is today through the lens of the WHO Task-Shifting Model for healthcare system implementation, and address the ICT Programs potential for tomorrow.

METHODS

A descriptive, non-experimental research method was used to collect and analyze the ICT Program’s quantitative and qualitative data. The author used a systematic investigation of reference libraries for the keywords medic, transition, employment, budget, medical readiness, and medical workforce shortage. Interviews were conducted in person, via e-mail, and via virtual media.

PILOT

The ICT Pilot Program began in December 2012 with over 400 applicants for 45 positions at 15 VA Medical Centers (VAMCs) Emergency Departments (EDs).⁵ The pilot intended to create a commensurate healthcare role, assess the position’s attractiveness, enhance the quality of care, and enable educational pathways.⁵ The timing for this pilot was beneficial to both the VA and the DoD because, in 2012,

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the VA was facing healthcare worker shortages. Over 10,000 medics were separating from the military, and DoD's Unemployment Compensation for Ex-Servicemembers (UCX) was \$1 billion in 2011.^{5,8,9}

DoD's medics receive their medical training at the Medical Education & Training Campus, which takes approximately 6 months and costs \$80,000 per medic to "recruit, pay, and train" them for service.^{10,11} These medics receive over 640 hours of didactics and hands-on medical training. Based on the medic's medical mission, their medical training supersedes the National Registry Emergency Medical Technician Certification, part of their graduation requirement.¹¹ The Office of General Counsel (OGC) guidance to the Veterans Health Administration (VHA) regarding liability and risk was that the ICT's documentation of the "Scope of Practice" (SoP) and clinical competency supports VA authority of federal supremacy not requiring state licensures for ICT to work in the VHA.⁵ Additionally, The Joint Commission (TJC), a healthcare accreditation organization, stated that "as long as VA has policies to ensure the competency of ...ICTs and abides by these policies... this should not threaten hospital accreditation."^{5,12} The ICT's SoP is less than the full scope of the medics' training but greater than civilian healthcare technicians.^{5,7} Based on the SoP, competency checklists were developed and confirmed by nurses and clinicians.^{5,7,13}

The VA National Center for Organizational Development and the Office of the Secretary of Defense formally evaluated the pilot. The evaluators looked at three primary areas: ICT satisfaction, work environment, and staff satisfaction. On all three points, the evaluators found the ICT Program to be an "overwhelming success..." and that it was "viable, valuable, and effective."⁵ The 15 participating VAMCs supported the ICT Program, and 33 more VAMCs expressed interest in starting the program at their locations and implementing the ICT role in other clinical areas. This pilot found two unexpected outcomes: increased patient throughput and patient satisfaction.⁵

In 2020, VHA published a Return-on-Investment (ROI) study to look at the ICT Program at VHA. The ROI study found a 60% increase in medics exiting the service with "no clear pathway to employment."¹⁴ VHA's Office of the Inspector General Occupational Staffing reported staff shortages at 46 [VHA] facilities, specifically for nurse and nursing assistant positions, while 22 additional facilities reported shortages for health aides and technicians.¹⁴ Marshall et al. found that the ICT Program seems to be "a viable solution to VHA's staff shortage and employment."¹⁴ From 2011 to 2019, the ICT Program expanded nationwide to all 18 Veterans Integrated Services Network (VISN).

The ROI team looked at six areas: "Door to Doc, Door to Triage, Discharged Patient Length of Stay, Admitted Patient Length of Stay, Left Without Being Seen, and Total Count (patient volume)."¹⁴ The investigators used regression-adjusted difference-in-differences to evaluate these six areas against the control group. Only "Door to Triage" demonstrated statistical significance in a group

analysis. When individually matched controlled pairs were compared, discharged patient length of stay, admitted patient length of stay, and left without being seen demonstrated statistical significance.¹⁴ Along with the statistical evidence, there is some "anecdotal evidence of improved patient satisfaction... patients, patient family members, and employees... because ICTs are Veterans themselves, they are uniquely qualified to deeply relate to patient's needs and offer a greater level of support."^{14,15}

CURRENT STATE

Since 2012, the pilot began with 45 ICT candidates at 15 facilities and has grown to 597 full-time equivalent positions in 82 facilities, a 1,000% increase⁷ (Fig. 1). The distribution of ICTs through the 18 VISNs demonstrated that only 44% of the 171 VAMCs employ ICTs (Figs. 2 and 3).^{7,16-18} Some may ask whether the use of unlicensed assistive personnel (UAP) is safe and valid in modern healthcare.

ICTs fall under a category of healthcare professionals referred to as UAP. The VA defines UAP as "VA staff (care team members) who are not licensed to perform certain clinical tasks including administration of specific medications."¹⁹ Looking outside VHA for validity and reliable comparison, the evidence points to a randomized control trial that looked at the impact of unlicensed healthcare personnel in healthcare. For clarity, unlicensed healthcare personnel and UAP represent the same type of healthcare personnel. The trial demonstrated "a reduction in readmissions for patients."²⁰ Internationally, the evidence points to the WHO. The WHO commissioned 13 independent bodies to evaluate the global healthcare workforce shortage and what was the most reliable way to address the issue. The WHO's intent in providing these guidelines was to give countries and their healthcare systems a validated and reliable system to address healthcare worker shortages, reduce healthcare costs, increase access to care, and manage increasing demand for healthcare.²¹ The WHO's research study developed a structured recommendation based on research from around the world utilizing UAPs through the concept of "task-shifting" to help answer the global healthcare workforce shortage.²¹

The Association of American Medical Colleges (AAMC) and the Bureau of Labor Statistics published a similar report. These organizations predict a U.S. population growth of "10.4%," physician shortages of 142,000, and nurse shortages of 1.1 million through the next decade.^{22,23} The current healthcare structure for medical doctors (MDs) and registered nurses (RNs) "training, retention, increased demand for services, and an increasingly aging population," which is insufficient given that "12.9 million workers will be needed by 2035."^{24,25} The WHO defines task-shifting as "specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health."²¹ According to Dr. Margaret Chan, Director-General of the WHO, "task-shifting approach

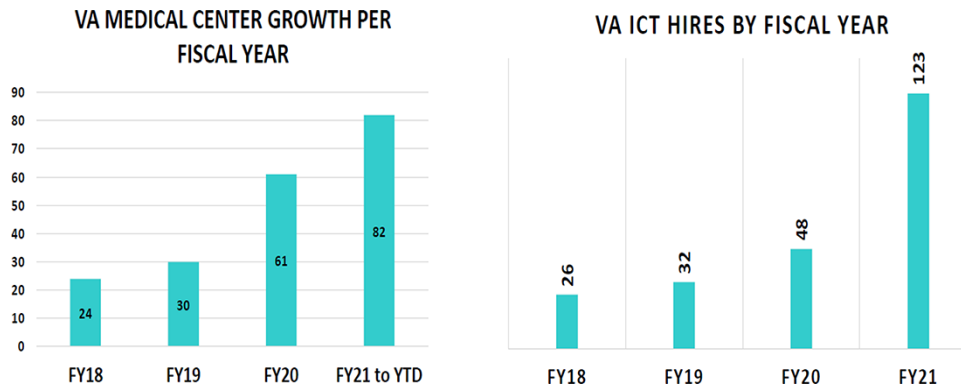


FIGURE 1. VAMC with ICT and new ICT hires. Legend: *⁷ Created by Kristina Snell, VHA ICT Program Lead, ICT growth in the last four years. Previous years' data were not available.

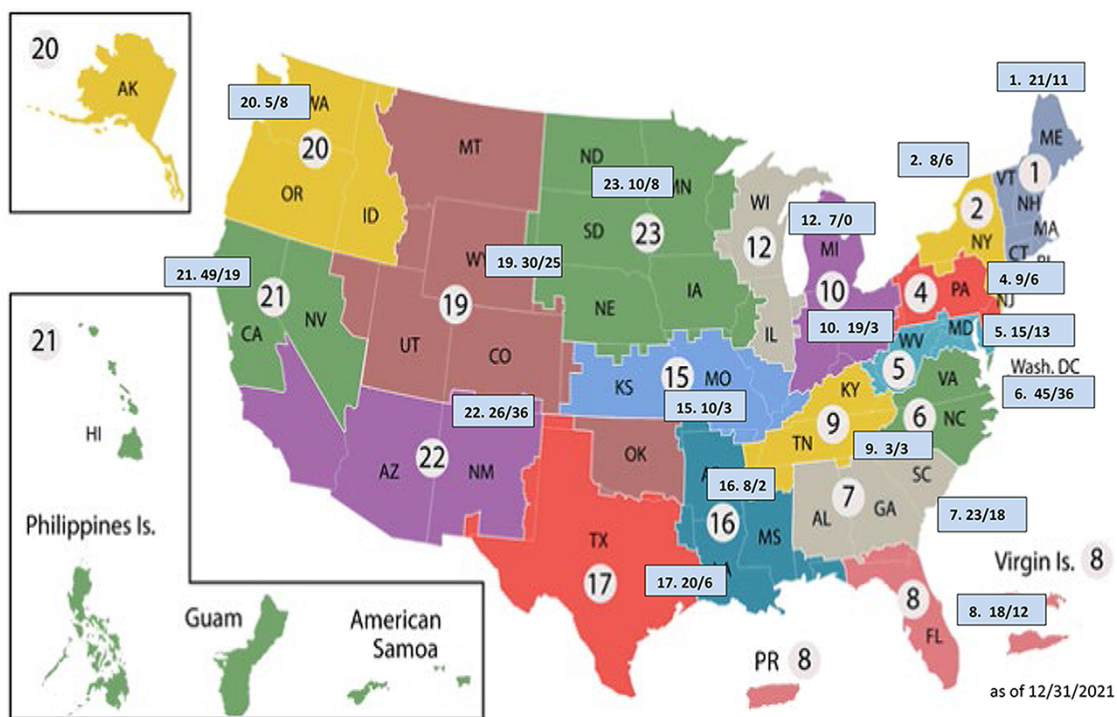


FIGURE 2. VA VISN locations and ICT staffing. Legend: VISN #. ICT employed/ICT vacancy (VISN. #/#),^{7,16–18} Calculations based on data gathered from these sources.

represents a return to the core principles of health services that are accessible, equitable, and of good quality.”²¹

An analogous application of task-shifting began in the 1960s with the development of the physician assistant (PA) and the nurse practitioner (NP) programs.^{26,27} These programs were born out of the shortage of physicians. In 1960, Dr. Charles Hudson wrote “some of the more technical parts of medical hospital practice might be delegated to individuals of less educational investment.”²⁸ Since the PA and NP inception in the 1960s, these two professions have helped bridge the physician shortage and began to change the face of healthcare.

The Medical Group Management Association produces a report looking at compensation—production ratio, which compares physicians, PAs, and NPs and their respective economic value to practice medicine. The Medical Group Management Association report demonstrates that PAs and NPs are more economical to employ based on compensation to revenue ratios than physicians.²⁹ Additionally, the AAMC has included PAs and NPs in their growth projection models as a tool to bridge the gap of physician shortages. The AAMC realized that PA and NP help “provide care to people who otherwise would not have received services.”²² Task-shifting to PAs and NPs is an analogous model for task-shifting to UAPs;

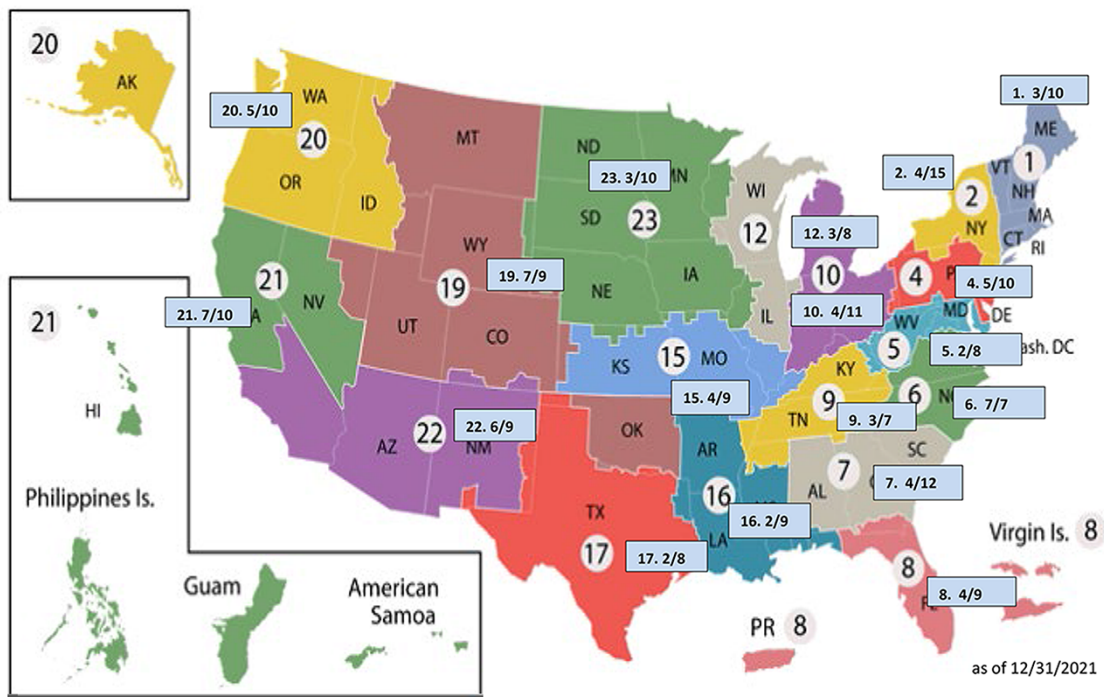


FIGURE 3. VA VISN locations and VAMC staffing. Legend: VISN #. VAMC with ICT/Total VAMC (VISN. #/#).^{7,16–18} Calculations based on data gathered from these sources.

furthermore, nursing institutions teach the task-shifting concept in their educational curriculum.^{30,31}

In 2019, two pillars of the nursing profession, the National Council of State Boards of Nursing and the American Nurses Association, released a “joint position paper” on [task-shifting].³² Their joint document states that “the [ability] to delegate, assign, and supervise are critical competencies...”³¹ These two pillars concurred that these guidelines applied to UAPs.³¹ Nursing educators, at the operational level, incorporate the task-shifting model into their nursing leadership and management curriculum.^{30,31}

The WHO demonstrates task-shifting as “a rational redistribution of task among health workforce teams...providing authoritative framework that can guide and support the implementation of task-shifting...”²¹ The WHO’s framework consists of five topical recommendations for implementation and 22 specific recommendations (Fig. 4).²¹ These recommendations demonstrate “quality assurance mechanisms, including standardized training, supportive supervision, and certification and assessment.”²¹

The WHO’s intent of these recommendations is to strengthen and expand to all healthcare systems and settings.²¹ This task-shifting model is used in high- and low-income countries whose healthcare systems are similar to or smaller than the VHA-integrated healthcare system.^{15,21} For comparison, Fig. 4 and the following sections apply the WHO recommendations to the ICT Program to evaluate how the ICT Program stands up to these global standards of care. Fig. 4 shows the results of consolidated interviews with ICTs,

RNs, physicians, and other healthcare workers and their opinion on how the ICT Program compares with the WHO recommendations.

Public Health Initiative

Task-shifting improves access to care and the quality of healthcare.²¹ VHA, having established the ICT Program a decade ago, is a great role model for the U.S. Healthcare System.^{5–7} It is unclear whether the Honorable Shinseki intended this initiative as a public health initiative to reduce healthcare costs, create a career opportunity for medics, or help bridge the gap among healthcare workers. The author’s efforts to interview the Honorable Shinseki were unsuccessful, and there are no records to support either assumption.

The WHO Model recommends “maximizing the scope of practice...” which the After-Action Report (AAR) from the pilot found that the utilization of the ICTs allowed others to work at the top of their scopes of practice.^{5,21} The VHA staff reported that [ICTs] are “valuable team members...frees up time for physician and nurses to see other patients...allow nurses to function more fully as caregivers...increased licensed staff productivity.”⁵ The ICT Program does appear to meet the intent of increasing the number of skilled healthcare workers⁷ (Fig. 1).

Creating and Enabling a Regulatory Environment for Implementation

In 2012, OGC concurred and supported the ICT Program on their authority under federal supremacy to work in healthcare

Task Shifting Global Recommendations and Guidelines: Score Card (Figure 4)					
	Green Achieved	Amber InProgress	Red Not started	Not Applicable N/A	Comments
Recommendations on adopting task shifting as a VHA initiative:					
1. VHA, in collaboration with relevant stakeholders, should consider implementing and/or extending and strengthening a task shifting approach where access to health services, is constrained by health workforce shortages. Task shifting should be implemented alongside other efforts to increase the numbers of skilled health workers.					ICT Program since 2012, AAR- confirmation of stakeholders, OGC concurrence on federal supremacy, ICTs Program aligns with The Joint Commission (TJC) standards (HR.01.04.01 and HR.01.06.01.), Authority of VA Professionals to Practice Health Care,
2. In all aspects concerning the adoption of task shifting, relevant parties should endeavor to identify the appropriate stakeholders.					Same comment as above
3. VHA, adopting the task shifting approach should define a nationally endorsed framework that can ensure harmonization and provide stability. VHA should also explore a framework for the exploration of task shifting to meet other critical public health needs.					Same comment as above, Scope of Practice , Clinical Competency's
4. VHA should undertake or update a human resource analysis that will provide information on the demography of current human resources; the gaps in service provision; the extent to which task shifting is already taking place; and the existing human resource quality assurance mechanisms.					Same comment as above, 17 plus clinical areas and clinical competency's
Recommendations on creating an enabling regulatory environment for implementation:					
5. VHA should assess and then consider using existing regulatory approaches (laws and proclamations, rules and regulations, policies, and guidelines) where possible, or undertake revisions as necessary, to enable cadres of health workers to practice according to an extended scope of practice and to allow the creation of new cadres within the health workforce.					Same comment as above, Authority of VA Professionals to Practice Health Care (Federal Supremacy), Continued VHA/DoD collaborations through Office of Nursing Services (ONS)for synergy as it related to National Standards of Practice and Title 38 Hybrid Conversion
6. VHA should consider adopting a fast-track strategy to produce essential revisions to their regulatory approaches (laws and proclamations, rules and regulations, policies, and guidelines) where necessary. VHA could also simultaneously pursue long-term reform that can support task shifting on a sustainable basis within a comprehensive and nationally endorsed regulatory framework.					Same comment as above, AAR Pilot established
Recommendations on ensuring quality of care:					
7. VHA should either adapt existing or create new human resource quality assurance mechanisms to support the task shifting approach. These should include processes and activities that define, monitor, and improve the quality of services provided by all cadres of health workers.					Established during the pilot as competency standards
8. VHA should define the roles and the associated competency levels required both for existing cadres that are extending their scope of practice, and for those cadres that are being newly created under the task shifting approach. These standards should be the basis for establishing recruitment, training, and evaluation criteria.					Initial and annually competency confirmation, National Standards of Practice and Title 38 Hybrid Conversion
9. VHA should adopt a systematic approach to harmonized, standardized and competency based training that is needs-driven and accredited so that all health workers are equipped with the appropriate competencies to undertake the tasks they are to perform.					Achieved and in-progress, Womens health and Urology GERI ED, needs driven
10. Training programs and continuing educational support for health workers should be tied to certification, registration and career progression mechanisms that are standardized and nationally endorsed (or with in the organization).					Lead ICT , ICT pathway, National Foundational Training Course, Scholarship Programs,
11. Supportive supervision and clinical mentoring should be regularly provided to all health workers within the structure and functions of health teams. Individuals who are tasked with providing supportive supervision or clinical mentoring to health workers to whom tasks are being shifted should themselves be competent and have appropriate supervisory skills.					*5, 14, 34, 41, 42
12. VHA should ensure that the performance of all cadres of health workers can be assessed against clearly defined roles, competency levels and standards.					Competency Checklist, annual observation, TJC Competency, Quality Assurance, Performance Appraisal
Recommendations on ensuring sustainability:					

FIGURE 4. Note:^{6,7,36,44,50,51,57,60} The score card is derived from the WHO recommendations. Interviews were conducted with VHA healthcare professionals. These personnel had knowledge of the ICT Program. The score reflects an average scope of those opinions. All parties looked through the lens of the decade-long ICT Program and with the understanding that the healthcare profession is never truly complete. VHA considers itself a high reliability organization, always learning and always striving to improve, looking for the best patient outcome. Legend: Green/Achieved = functioning; Amber/In-progress = underdevelopment, not fully functional; Red/Not Started; Not applicable to the these research parameters.

Intermediate Care Technicians (ICTs)

	Green Achieved	Amber InProgress	Red Not started	Not Applicable N/A	Comments
13. VHA should consider measures such as financial and/or non-financial incentives, performance-based incentives or other methods as means by which to retain and enhance the performance of health workers with new or increased responsibilities, commensurate with available resources in a sustainable manner.					GS7-8, Incentive Award, Retention Bonus, Scholarship Pathways, Performance Appraisal, Awards
14. VHA should recognize that essential health services cannot be provided by people working on a voluntary basis if they are to be sustainable. While volunteers can make a valuable contribution on a short term or part time basis, trained health workers who are providing essential health services, including community health workers, should receive adequate wages and/or other appropriate and commensurate incentives.				n/A	n/a
15. VHA should ensure that task shifting plans are appropriately costed and adequately financed so that the services are sustainable.					Compensation for skills, Title 38 Hybrid Conversion
Recommendations on the organization of clinical care services:					
16. VHA should consider the different types of task shifting practice and elect to adopt, adapt, or to extend, those models that are best suited to the specific clinical situation (taking into account health workforce demography, disease burden, and analysis of existing gaps in service delivery).					Innovation Driven, Supporting Community Outpatient Urgent Care & Telehealth Services (SCOUTS), GERI Vet, National Electronic Health Record Supplemental Staffing Unit (NEHRSSU) for Cerner EHR, MMU)
17. VHA should ensure that efficient referral systems are in place to support the decentralization of service delivery in the context of a task shifting approach. Health workers should be knowledgeable about available referral systems and trained to use them.					High-Risk Eye and Limb Preservation Program (HELPP) - perform foot exams in Community-Based Outpatient Clinics (CBOCs), GERI Vet, SCOUTS
18. Non-physician clinicians (PAs and NPs) can safely and effectively undertake a majority of clinical tasks in the context of service delivery according to the task shifting approach.					N/A to the scope of this paper
19. Nurses can safely and effectively undertake a range of clinical services, in the context of service delivery according to a task shifting approach.					N/A to the scope of this paper
20. Intermediate Care Technicians (ICT), both in a health facility and in the community in the context of service delivery according to the task shifting approach.					In hospital Green, in community amber, HELPP - perform foot exams in CBOCs, GERI Vet, SCOUTS, still in early stages
21. Patients who are not trained health workers can be empowered to take responsibility for certain aspects of their own care. People living with certain medical conditions can also provide specific services that make a distinct contribution to the care and support of others, particularly in relation to self-care.					Patient Education with in their scope in their respective clinical setting
22. Cadres (other non licensed health workers), such as pharmacy technicians or technologists, laboratory technicians, records managers, and administrators, could be included in a task shifting approach that involves the full spectrum of health services.					N/A to the scope of this paper

Note-6, 7, 36, 44, 52, 53, 59, 62 The score card is derived from the WHO Recommendations. Interviews were conducted with VHA healthcare professionals. These personnel had knowledge of the ICT Program. The score reflects an average scope of those opinions. All parties looked through the lens of the decade long ICT program and with the understanding that the healthcare profession is never truly complete. VHA considers itself a High Reliability Organization (HRO), always learning and always striving to improve, looking for the best patient outcome.

FIGURE 4. (Continued)

facilities.⁵ However, the VHA leadership did not fully enact the federal supremacy and deferred to each state licensure for RNs to task-shift to different levels. This lack of action created some problems with the task-shifting in the ICT Program.⁶ In November 2020, VA published an executive rule, "Authority of VA Professionals to Practice Health Care."³³ This rule solidifies the "VA's authority to establish national standards of practice for healthcare professionals, which will standardize a healthcare professional's practice in all VA medical facilities."³³ VHA is currently working on national practice standards for its healthcare workforce.⁶

Ensuring Quality of Care

Evidence of the consistent quality of care since the ICT Program pilot is in its AAR comments from The Joint Commission (TJC) regarding SoP and competency checklist with

confirmation by licensed medical practitioners on those competencies.^{5,7,14,34} The ICT Program Office recently established the ICT Foundational Training Course, similar to Clinical Nurse Training Program.^{7,35} This course is in addition to the ICT competency skills checklist completed at their home VAMC.⁷ The National ICT Program Lead, Kristina Snell, continues to improve the program through national standardization and patient safety initiatives as a part of a highly reliable organization.^{7,36}

Ensuring Sustainability

Congress established several different laws assisting in the recruitment efforts for medics. The latest law is the Hire Veteran Health Heroes Act of 2021, which requires the DoD to refer existing service members with a medical occupation to the VA for consideration of open positions.³⁷⁻³⁹ An ICT entry-level salary is that of a General Schedule Pay Scale 7, which,

when compared to the Bureau of Labor Statistics national pay average, is five to ten thousand dollars higher than an emergency medical technician's (EMT) salary.^{7,40} The VHA offers ICTs career opportunities for advancement and scholarship pathways to become RNs, PAs, and MDs.⁷

Organization of Clinical Care Services

VHA as an organization demonstrates its acceptance of task-shifting through 18 different clinical settings.⁷ A recent expansion opportunity for ICTs was the Geriatric Emergency Room Innovations for Veterans Program. For the VA, over 40% of ED patients are over 65 years old.⁴¹ The American College of Emergency Physicians "recognized the ICT role and approved ICT geriatric champions as an alternative to nurse champions."⁴² Huded et al. found in the Geriatric Emergency Room Innovations for Veterans Study that "ICTs, who possess both nursing and provider skills through their Military training, have been incorporated into clinical care in numerous VA settings..."⁴¹

TOMORROW

The past two years of the Coronavirus Disease 2019 (COVID-19) pandemic and the ensuing required healthcare response required military medical assets to support 25 states and their healthcare staff shortages.⁴³ After assisting civilian healthcare systems, some of the same medics are exiting the military and are available to fill some healthcare gaps. However, "bureaucratic red tape, a lack of clear regulations, and poorly communicated standards in most states and territories prevent the progression from happening."⁴³ A Call of Duty Endowment Survey found that only six of the 56 states and territories "provide clear pathways of opportunity for medically trained Veterans" to roles as an EMT.⁴³ This issue is concerning because EMT is a national certification medics earn in their military medical training; unfortunately, states reserve the licensing ability.⁴³

However, as a federal agency, the VA has a way to bypass the issue of state licensure under federal supremacy, which OGC and the most recently published rule address.^{5,33} Jeffrey P. Cereghino, Sergeant Major, US Army Military Senior Fellow—VA, dubbed "Four Wins of the ICT Program."⁴⁴ The four wins: Existing Servicemembers, Military, VHA, and Veteran.⁴⁴

Exiting Servicemembers

When VHA hires these medics as ICTs, VHA "employs their medical skills in a healthcare role commensurate with their military education, training, and experience without the need for a license or additional credential."⁷ The ICT career field offers a higher entry-level salary than an EMT or a paramedic.^{7,40} A paramedic licensure, depending on the state and program, could take an additional 6 months of clinical rotations and didactic training.¹¹ In addition, direct employment, as VHA offers, supports one of the pillars of suicide prevention recognized in the 2020 National Veteran Suicide

Prevention Annual Report.⁴⁵ For example, an ICT reported on the survey, "[The] truth is, this job saved my life. I'm not sure if Washington understands the positive impact they have made on so many of our lives."⁵

The Virginia Department of Veterans Services developed the Military Medics and Corpsmen Program (MMAC), modeled after the ICT Program. The MMAC Program facilitates the employment of over 369 veterans across 17 public and private healthcare systems within Virginia.⁴⁶ Mark Whiting, MMAC Program Manager, reports that the MMAC Program is so successful that other states ask to replicate the program. Bill de Steph, a Virginia State Senator and Navy SEAL Veteran, gave a testimonial regarding the MMAC Program, "This is the way state government should work."⁴⁶

Military

Transition assistant programs, like the ICT Program, helped DoD reduce the UCX from \$1 billion in 2011 to \$285 million in 2020.⁷ However, UCX dollars are not just for active duty military leaving the service. National guard and reserve (NG/R) medics are also eligible for UCX compensation due to the length of their training.⁴⁷ When the VHA employs existing service members and these NG/R members, the VHA is capitalizing on reinvesting in federal medical training.¹¹ Additionally, 88% of the ICT Programs and 8% of MMAC Programs employ service members currently serving in the NG/R.^{16,44} TSgt David Padilla, ICT in VHA and the California NG, was activated for active duty in response to COVID-19. When called upon for several different medical missions, he stated, "I don't think I would have been [as] knowledgeable [as a] medic if it wasn't for working with my VA family."⁴⁸ TSgt Padilla said, "Because of my full-time job as an ICT, I am able to provide high-quality medical care in any situation or deployment."⁴⁸

Several medical professionals compared the SoP, for the ICT, against the Training Circular 8-800 Medical Education and Demonstration of Individual Competence, which consists of Medic Tables 1–8, levels of evaluation. Training Circular 8-800 "focuses on continuing education and validation of skills" for medics.⁴⁹ These medical professionals concluded that the possibility exists that the ICT Program could increase NG/R medical readiness, reduce training time, and save money.^{7,50–52} MSgt Maria Wesloh is an Air Force Reserve Aeromedical Evacuation Technician, Instructor/Examiner, and Lead ICT for the Fayetteville, NC, VAMC, who believes, "technicians that work as ICTs could receive the majority of their mandatory medical competency training during their weekly employment as an ICT."⁵¹ SGM Christopher Veal, Senior Enlisted Reserve Component, Medical Center of Excellence, commented, "the ICT Program has the potential to save units time and money."⁵⁰

Veterans Health Administration

Nursing is VHA's largest occupation, accounting for 112,000 employees, and currently, VHA has the highest nursing

turnover rate in the last 15 years.^{53,54} VHA “will have to hire 15,000 nurses a year for the next five years” to compensate for this attrition.⁵⁴ Similar to PAs and NPs roles in addressing physician shortages, the ICT can help fill some gaps at a lower cost. Marshall et al. reported that “ICTs work as force multiplier, increasing access to care, enhancing nursing and medicine productivity, and increasing patient satisfaction.”¹⁴ Dr. Steven Lieberman, Deputy Under Secretary for Health, endorses the ICT Program and its Foundational Training Course, believing that “it will bring incredible clinical value to VHA.”⁵⁵ ([VHA ICT SLICE Video Announcement](#)).

Dr. Smith, ED, Director, of Cleveland VAMC, wrote that “ICTs can complete time-intensive clinical tasks typically completed ... providers—I&D, suturing, cerumen removal, procedure prep—so that our providers can have additional time to manage the next patient.”⁵⁶ The AAR and the ROI concurred that ICTs “increase access to care, enhance nursing and medicine productivity, and increase patient satisfaction.”^{5,14}

Veterans

Veterans caring for Veterans is a simple and obvious correlation. Currently, 31% of the VHA workforce are Veterans.¹⁵ Watts et al. found that ICT’s veteran status provides an “opportunity to form a bond with Veteran patients who are struggling and may not have been open to the well-meaning intentions of other healthcare team members.”³⁴ Jenifer Blatnik, ICT Lead at Cleveland, VA, states that, “as a retired Independent Duty Corpsman in the Navy, I was only qualified to be a nursing assistant [according to civilian licensure standards].”⁵⁷ “Filling the role of an ICT in the VA not only gives a sense of being needed, ... it allows me and other Veterans to connect.”⁵⁷ Marshall et al. found that since “ICTs are Veterans themselves, they are uniquely qualified to deeply relate to patient’s needs and offer a greater level of support helping patients navigate VAs complex system of care.”¹⁴

DISCUSSION

President Obama said, “Our tributes [speaking about Veterans] ...ring hollow if we don’t provide our Veterans with the jobs and opportunities that you need when you come home.”⁵⁸ The ICT Program demonstrates an actionable promise to veterans. Veteran beneficiaries can have confidence in the systematic development, sustainment, and continued innovation of the ICT Program, as demonstrated in [Fig. 4](#).

The ROI looked at “financial gains and losses while accounting for the resources invested into the ICT Program.”¹⁴ The ROI did not look at the critical financial benefit of task-shifting. Task-shifting demonstrates intuitive cost savings, but measuring it is difficult. For example, ICTs must be competent in over 50 tasks in emergency medicine.^{13,51} These tasks are confirmed initially and there annually.^{7,13,51} Additionally, 14 of these tasks are performed by clinicians, 28 by RNs, and seven by clinicians or RNs.^{13,51} A study by Dall’Ora et al. found that it takes nurses an average of five minutes to take and record a patient’s vital signs.⁵⁹ Vital signs, potentially one

of the simplest but crucial tasks, shifted to ICTs would allow nurses to work at the top of their scope. Likewise, two 15-minute procedures completed by ICTs that providers would usually complete could open a provider’s ability to see at least one more patient during an ED shift.⁶⁰ If not for the ICT, each of these simple examples would require completion by a higher-cost healthcare worker.

To help gain an accurate picture of the cost savings of using an ICT, a surveyor would have to conduct an observational “Time-in-Motion Study” to measure the number of tasks-shifted and the amount of time-shifted back to the delegator. This type of study was previously used in task-shifting from MDs to PAs.⁶¹ The ROI report did not mention the occupations in the “control group” that completed the parallel tasks of the ICT; the assumption is that the control groups were RNs and physicians.^{7,14} Given that the tasks an ICT completes are essential tasks needed for patient care, why not an economically qualified and skilled ICT?

The rise of PAs and NPs did not replace physicians. However, they allow for increased access to care, reduced healthcare costs, and overall increased healthcare workforce.²² Similarly, ICTs are not replacing RNs or Licensed Practical Nurses, they are allowing RNs, PAs, NPs, and MDs to work at the top of their scope of practice.^{5,14,20}

RECOMMENDATIONS

VHA accomplished two of the three recommendations published in the AAR.⁵ The expansion of the ICT occupational positions across VHA still has room for growth. [Figures 2 and 3](#) demonstrate the deficiencies, such as over 50% of the VAMC do not have ICTs in their workforce.^{7,16–18} Second, conducting a “Time-in-Motion Study” would assist in quantifying the ICT Program’s impact. Finally, the DoD and VA Secretaries should implement directives to capitalize on this potential for increasing the ready medical force through NG/R medic employment in the VHA.

CONCLUSION

The WHO research team believes that “the heart of every health system is the health workforce,” but it is also most expensive and fluctuant.²¹ This year’s Association of Military Surgeons of the U.S. theme was “Healthcare Transformation Starts with Medical Education and Training.”⁶² If DoD and VA believe this to be true, then DoD and VA must have confidence in the product of their medical education and training; in this case, the product is the medic.

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CONFLICT OF INTEREST STATEMENT

None declared.

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