

Appendix. Program descriptions

Lead author and year	Student population in program	Description of paid coop model	Setting	Type of clinical service	Funding source(s) for the model	Recipients of the funding	Student payment
Ahluwalia (2014)	Since 2000, over 150 students (OT, PT and SLP students) have conducted internships	5-10 week internships at clinical training sites, which include sites in low and middle income countries.	Various international clinical sites	Rehabilitation clinics and programs, peri-urban hospitals, academic hospitals and centre for adults with disabilities	Various funding sources (i.e., student fees, donations, fundraising)	Various recipients based on model (i.e., Canadian supervisor, host organization, etc)	Some departments offered scholarships to students for the work done
Allen (1994)	Medical students, number not reported	Students spend their final year in a series of eight clinical attachments. The trainee intern usually manages about one third of the patients managed by the clinical firm. Trainee interns are committing an average of 40-50 hours a week. To qualify a student requires a passing assessment from each clinical attachment and a satisfactory report from the elective period. In addition, the department of medicine is developing a mini logbook for the trainee intern year to ensure that all students are exposed to an adequate number of basic procedures and investigations.	Hospital	Various disciplines	Funded jointly by the education and health departments	Medical students	Paid 60% of a house officer's salary for their clinical work, amount not reported
Black (2010)	Master students in social work, 2005-2006 cohort=172 students, max of 20 per school (10 schools)	A statewide stipend program to support final-year Masters in social work students in their graduate study and a requirement for a year of employment payback in the public mental health system.	County public mental health agency or a community-based organization	Mental health	Mental Health Services Act (MHSA) dollars	Students, and funding for the mental health coordinators and the schools	Stipend of \$18,500 to each student.
Bradshaw (2018)	Midwifery students, number not reported	Ireland introduced a direct entry BSc Midwifery program which included an internship period (4th year). During internship, students undertake 36 weeks core midwifery placements providing care over the 24 hour continuum under supervision of registered midwives. In addition, students, have protected reflective time during internship both in University and clinical practice.	Two hospitals	Labour ward	Not reported	Midwife students	Salaried members of staff, details not reported
Cushen-Brewster (2021)	50 nursing students in cohort	The emergency measures implemented by the Nursing and Midwifery Council in response to the COVID-19 pandemic provided	Regional and metropolitan acute	Not reported	Not reported	Students	Paid employee, details not reported

		nursing students in their final 6 months of study with the opportunity to complete a paid consolidation clinical placement.	teaching hospitals, and community settings.				
Cushen-Br ewster, Barker et al. (2022)	Final year nursing students, numbers not reported	Final year nursing students were provided with the opportunity to undertake an extended final work placement in hospitals and community trusts to support the delivery of care. In response to COVID-19 pressures, the final placement had a different focus, as student nurses were not supernumerary, became more integral to staffing rosters.	Hospitals	Not reported	Not reported	Nursing students	Paid placement , details not reported
Cushen-Br ewster, Driscoll-E vans et al. (2022)	15 nurse apprentices in June 2018, up to 2000 students per year	The four-year adult nursing apprenticeship standard was approved by the Institute for Apprenticeships in 2016.	Hospital	Various wards	Employers and department of Health and Social Care	Student	Salary, amount not reported
Desmond (2007)	Medical students, number not reported	This internship program consists of 12 months of full-time, off-campus experience under the supervision of preceptors. It is characterized by a dedicated period of clinical training following the completion of the major portion of academic and clinical rotations.	Not reported	Not reported	Not reported	Students	The extern may receive a paid salary, stipends, traineeships, assistants hips, tuition reimbursement or grants associated with student training.
Donovan (2020)	Pharmacy students, number not reported	Six months paid placements.	Non-patient facing settings	Pharmaceutical industry, education and regulation	Placement provider	Students	Paid placement , no details reported
Godbold (2021)	Nursing students, number not reported	As a direct result of the Covid-19 pandemic, in March 2020, the Nursing and Midwifery Council introduced temporary emergency educational standards. These allowed students in their second and final years of their programme to undertake an extended clinical placement that did not require them to have a supernumerary status in	Hospital and community	Neonatal intensive care, adult intensive care, adult and paediatric general medical, surgical, orthopaedic	NHS trust provider	Students	Salary, no details reported

		practice and enabled them to support the health and social care workforce. Those who chose to undertake it moved to an 80% split in practice and 20% in theory (instead of the previous 50%-50%). In addition, they were salaried on a high-level nursing care assistant pay scale.		, stroke care wards, to hospital based safeguarding teams, community care, mental health elderly care, and mother and baby unit.			
Godbold (2022)	Nursing students, numbers not reported	Paid extended placements as health care assistants	Hospital and community	12 different clinical areas, from adult, children, learning disability and mental health	Not reported	Student nurses	Paid placement, no details reported
Green (2022)	More than 18,700 nursing students chose to undertake these paid placements	Final-year nursing and midwifery students were invited to do a paid placement during the COVID-19 pandemic to support the National Health Service (NHS) workforce. Second-year nursing students and those in the first six months of their third year were also asked to undertake extended clinical placements.	NHS trust	Mental health or learning disability	NHS trust and COVID-19 response funding package provided by the UK government	Student	Paid employment, no details reported
Hernandez (2020)	Students nurses, 472 student from 2003 and 2004	College of Nursing students at the University of New Mexico are eligible for the internship program during the final two semesters of their nursing program. All students who are successfully progressing through their undergraduate program coursework are eligible to enroll in the internship course. These nursing student interns work in a clinical environment under the close supervision of an RN preceptor. Nursing student interns are hired, paid employees of the hospital, and they must also enroll in an associated 1-credit course provided by the University of New Mexico College of Nursing during all semesters. Their eligibility to participate in the program is directly related to their success in their other nursing courses. Nursing student interns who fail a course must resign from the internship position, which can create a financial hardship for the nursing student interns and the loss of a valuable employee for the	Hospital	Not reported	University of New Mexico Hospitals	Students	Paid employees, details not reported

		hospital. Nursing student interns typically work between 6 and 36 hours every 2 weeks depending on the nursing student intern schedule and the unit needs.					
Hughes (1993)	22 nursing students participated in the nurse externship course at one hospital, while 16 additional students participated at two other hospitals.	Program for senior nursing students that would offer a summer clinical experience in practice settings under the supervision of both nursing faculty and clinical nurse preceptor. The Nurse Extern Practicum is an 8-week summer elective offered by contract to hospitals in upstate South Carolina. Students apply for admission through the nurse recruiter at the hospital system and are screened by hospital staff and faculty. This externship was developed for academic credit but also offered financial remuneration for students. Students provided care for selected patient(s) under the supervision of their preceptors, with responsibilities for total patient care increasing as their level of proficiency and experience rose. Course requirements include satisfactory completion of course objectives, including a skills checklist, an end-of-course clinical behavior evaluation, four 8-hour clinical laboratory experiences each week for the 8-week course, and attendance at a 2-hour clinical conference each week.	Three hospitals	- First hospital: critical care areas, including coronary care, medical intensive care, surgical intensive care, neurologic intensive care, step-down cardiovascular, step-down coronary care, and the Emergency trauma center - Two other hospitals: medicine, surgery, orthopedics, neurology, pediatrics, rehabilitation and others	Contracting agency pay the salary of the faculty, including fringe benefits and the graduate assistant salary	- The budget for the course includes faculty and graduate teaching assistant salaries as well as student stipend - Students: stipend, equivalent to a competitive hourly wage in the clinical area. Half of the funds given at midpoint in the course, and the remaining half distributed at the end. Students also do not pay tuition for the summer school credit	Stipends 1,700\$, funds for student stipends are equivalent to a competitive hourly wage in the clinical area
Keating (1994)	10 nursing students selected each semester	Work study program that allows students to gain academic credit while earning a salary for the nursing services they render. The nursing department at the medical center would place the students on the payroll as senior nursing assistants, for a total of 240 hours per semester of clinical service in the hospital. The students worked	Large university-based hospital	Various units, except operating room, labor and delivery and intensive care	Medical Center	Students and faculty members	Salary, no details reported

		two 12-hour shifts over a 10-week time period. Offered as an option in the required senior level specialty courses (one semester in a selected specialty and one semester in community health nursing). Finally, the faculty member worked cooperatively with the students and preceptors during their orientation and progression in clinical performance and competency levels.					
Kee (2001)	40 Undergraduate nursing students participate in the program annually	The Houston School of Nursing has entered into a collaborative work-study-scholarship program with hospitals in the Texas Medical Center and the Houston community. This collaborative agreement allows students who are in their second semester of clinical nursing course work to be employed as unlicensed personnel. Students are recruited in their first semester in the BSN program so that they can be oriented. The most common criteria include: (1) full-time status in the BSN program, with good academic standing (minimum of a 3.0 on a 4.0 scale), (2) a recommendation by a faculty member that attests to the student, motivation and academic ability, (3) a statement of career goals, and (4) a commitment to work a minimum of 24 hours per month. Some of the agencies require students to interview with a nurse manager from their hospital and others accept the top-rated students based on faculty recommendations. The demands of school commitments require flexible scheduling by the various units and include 4-, 8-, or 12-hour shifts.	5 hospitals and community hospitals	Hospitals assign students to all units, including the emergency room, intensive care, and labor and delivery	Hospitals	Students, faculty coordinators and hospital facilitators	Students receive a salary for hours worked and 500\$ a semester scholarship from the agency. Faculty coordinators are paid for recruiting and supervising student placement and experiences by the hospitals through the faculty practice plan. Hospital facilitators are paid by their respective employers.
Keil (2021)	4 third year students and one fourth year student from Dec 2017 through Feb 2018	Denver Health Medical Center has a paid pharmacy internship program. 12 pharmacy interns are hired as early as their first year in pharmacy school. Students in their first professional year and second professional year focus on operational duties such as medication preparation and distribution, whereas students in their third professional year and fourth professional year focus on direct patient care and clinical	Tertiary care teaching hospital	Clinical and administrative	Hospital	Students	Hourly, 16.24\$/hr

		responsibilities aligned with departmental initiatives.					
Leigh (2020)	Nursing students	Two types of student nurses in this program. Aspirant nurses (Grade Band 4) are preparing to join the temporary register or completing education programme in preparation for joining the full register as a registered nurse. Students undertaking this role will be expected to: implement care packages under the supervision of a registered nurse, carry out nursing care programmes, actively pursue all opportunities and use protected learning time to develop competencies to enable successful application to the NMC for future registration. They are students in the final 6 months of their pre-registration undergraduate or postgraduate nursing or midwifery programmes. Clinical support worker (Band 2 or 3) are nursing students not in their final 6 months. These Students may spend no more than 80% of their hours in clinical placements and 20% of their hours in theoretical learning.	Healthcare organisations	Various	National Health Service (NHS)	Healthcare organisation to employ students	Paid placement, details not reported
McSherry (2021)	165 nursing students in the 2017 cohort of the undergraduate pre-registration nursing course.	Student nurses were asked to join the front-line workforce delivering care to patients during the pandemic. This enabled some student nurses in the last six months of their training to undertake paid clinical placements.	Acute Hospital	Various wards (acute medicine, emergency, surgical, orthopaedics and trauma, community nursing, cancer ward, respiratory)	National Health Service (NHS)	Student	Paid placement, details not reported
Nolet (2015)	Nursing students, cohort 1=5 interns, cohort 2=5 interns	The program couples a paid nursing home work experience with an evidence-based long term care nursing curriculum. The Wisconsin Long Term Care Clinical Scholars Program, which is currently in its third cohort, was developed in 2010-2011 through the collective efforts of two Schools of Nursing, the State of Wisconsin, and four nursing homes in south central Wisconsin. It was designed as a 12-week summer nurse internship for either junior or senior nursing students. Students were hired as nurse techs, a Wisconsin position	Long term care	Five nursing homes	Nursing homes	Students and preceptors (pay for preceptor training)	Hourly wage, no details reported

		allowing nursing students certified as nursing assistants to perform licensed nurse duties under the supervision of a licensed RN. Two faculty presented the internship opportunity during junior and senior level nursing classes, distributing informational flyers. A website was developed for students to find more details. Posters and announcements were posted in key places to gain student attention. The integration of clinical work, didactic workshops and peer discussions was accomplished through intern assignments each week.					
Oh (2021)	Pharmacy students, each cohort comprising around 120 students	Only two pharmacy programs in North America offer co-op education as a form of work-integrated learning, one of which is the University of Waterloo in Waterloo, Ontario, Canada. In the co-op model at Waterloo, students apply and interview for, and are hired into, paying jobs for their mandatory experiential education during their second and third years. After interviewing, both students and employers rank their preferred position and candidate, respectively, and are matched using a computer algorithm.	Various (hospital, community, industrial)	Not reported	Clinical settings	Students	Hourly wage, 14-17.69\$ /hr
Paul (2011)	Nursing students, numbers not reported	The ten-week internship is a fourth year summer course offered to select students who have demonstrated strong academic and clinical performance. Students enrolled in this course become a fulltime employee of a designated unit. The faculty member who teaches the course is less physically present than in the direct supervision model but more physically present than in the preceptorship model. In the Faculty of Nursing at the University of Alberta, a third model, the nursing internship, was developed to provide an alternative that is pedagogically at the intersection of the other two models. Students receive direct supervision from all Registered Nurses on the placement unit. As these students are in the second last clinical course of their program they are required to manage the care of more complex clients in acute care settings.	Tertiary care hospitals	Medical and surgical units of four hospitals	Not reported	Students	Paid employee, details not reported
Phillips (1995)	Occupational therapy	A 12-month full-time internship (40hrs work week) was created at	Hospital and outside	Adult community	Not reported	Students	Salary and earn

	students, number not reported	the Irene Walter Johnson Institute of Rehabilitation in Barnes Hospital of St. Louis, in cooperation with the Washington University program in occupational therapy. Selection criteria for interns include a grade point average of 2.5 or better, successful completion of occupational therapy academic requirements from an accredited education program, references from one faculty member and one Level I fieldwork supervisor, and a written essay stating the student's qualifications and what he or she hopes to accomplish during the internship. The committee then interviewed these candidates. Finally, the intern's progress is evaluated formally in midterm and final evaluations.	facility	programs, work performance programs, upper extremity and hand rehabilitation, acute and long-term neurology, general medicine and surgery, and community pediatrics.			employee benefits including sick leave and vacation time as well as medical and dental group plan benefits
Porter-Stubbbs (1985)	Nursing students, number not reported	Work-study elective courses where students are paid by nursing service for part or all of the learning experiences and they receive university credit. The learning experiences may include didactic content and/or seminar and clinical practice time as well as time spent working as nursing service employees.	Hospitals	Clinical units, details not reported	Institution-supported funding	Students and faculty	Varies among institutions. Some students might be paid for 40 hours per week (clinical, work, and lecture), clinical and work or work only
Shahzeydi (2022)	Final-year nursing students, numbers not reported	In this program, final-year nursing students fulfill their internship program in various hospital wards, including 20 shifts (morning, evening, and night) per month, and are paid a monthly salary. At the time of patient assignment, the head nurses assign two patients to each student in the first week, three in the second, and four in the third and fourth weeks. Students are independently responsible for patients; however, they work under the nurse supervision and raise questions and problems. Besides, resident faculty visit students at least four times a month, evaluate their knowledge and skill, and provide feedback on their problems.	Six hospitals	Various clinical setting: Medical/Surgical, Intensive Care Units, Cardiac Care Unit and pediatric wards	Not reported	Students	Monthly salary, detail note reported
Shajani (2023)	487 nursing students were hired	In Alberta, during the COVID-19 pandemic, the collaboration between the health system and PSIs	2 provincial hospitals	Various wards, but student	Not reported	Students	Hourly wage, details not

	into the 2 participating health care organizations	led to the creation of an undergraduate nursing employee/student hybrid role. The role allowed nursing students to complete the required learning for their final preceptorships and/or complete leadership placements in a paid role while being integrated into the unit culture and becoming part of the team. The role is an unregulated role that provides direct patient care under the supervision of a registered nurse or a registered psychiatric nurse. Students only performed skills for which the theoretical knowledge was covered in the nursing program, although the unit may have additional learning materials for students to complete activities. The student could process orders if this was included in the nursing program; however, they were prohibited from taking verbal or telephone medication orders and providing supervision to other employees (such as health care aides or other students).		were given the choice to move their clinical placement to care areas in most need due to the pandemic (medical, surgical or emergency departments)			reported
Stout (2015)	Nursing students, 26 students in 2 cohort during 2012	In collaboration with the University of Texas at El Paso, nurse leadership at Del Sol Medical Center implemented an internship program for nursing students in the final semester of a bachelor of science in nursing (BSN) program. Applicants were required to submit an application, a letter of interest indicating their commitment to the nursing profession, unofficial college transcript, and picture identification card. The applicants ranked their area of preference. Depending on the number of applicants and open positions, selected interns were assigned to one department for the length of the internship. Each interested candidate had a behavioral-based panel interview, conducted by Del Sol and the university team members. During the first 3 weeks, interns focused on completion of general hospital and nursing orientation, didactic training, and simulation training for the interns assigned patient populations. Students typically complete 180 hours of acute care practicum and 135 hours of community practicum. The nurse interns received an additional 260 hours of internship	Hospital	Rotations, including acute care and community practicums at Del Sol in one of the following settings: the emergency department, intensive care unit, cardiovascular ICU, neonatal ICU, telemetry, or medical-surgical departments.	Medical Center	Students	3,500\$ stipend

		time while at Del Sol. The weekly schedule for student interns was two didactic class periods and three precepted 12-hour shifts.					
Vasquez (2022)	First and second-year BSN students, number not reported.	Long-term care clinical externship that provides students with hand-on dementia care skills. This program was an elective course.	Long term care and acute medical settings	Geriatrics, dementia care and memory care	Not reported	Student	Stipend, no details reported
Wallace (2016)	Nursing students, more than 80 nursing students participated in the program in 2015	In California, board-approved pre-licensure nursing programs may offer work-study courses for which students receive academic credit. Each spring, partnering universities invite senior-level nursing students to apply to the program. Students must be recommended by faculty and demonstrate strong academic skills. The program occurs during the students summer break prior to completion of their senior-level curriculum. University faculty develop a syllabus, including course objectives that support a clinical learning experience based on the application of previously learned nursing theory and clinical practice skills; new skills may not be taught in the program. Work-study interns are paid and typically work three shifts per week for approximately 10 weeks for a total of 240 hours.	Hospitals and clinical education departments	Variety of clinical areas including the emergency, adult inpatient, maternal child, perioperative, quality and risk, infection prevention, and clinical education departments	Health system community benefit fund	Students	Salary, no details reported
Young (2014)	Two cohorts, 10 nursing students in the spring and 7 in the fall.	A team of academics and nursing practice leaders designed a paid traineeship program that specifically targeted groups underrepresented in community/public health nursing.	Public health and community-based settings	Sites included city and county public health agencies, two Federally Qualified Health Centers, a local clinic for the underserved, an AIDS resource center, an urban school, and two community nursing centers	Half of each stipend was paid by the partner agency and half was provided by Raising the Bar funding partners (Faye McBeath Foundation, WCN, Greater Milwaukee Foundation and Northwestern Mutual Foundation)	Students, faculty members (for increased workload) and preceptors (\$1,000 stipend for professional development)	7,500\$ stipend