Battling for Bed Space in Kingston General Hospital, Ontario: 1927 to 1958

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Urban hospitals can be gargantuan, heterogeneous complexes that result over decades of acquisition, assimilation, and reconstruction. Their layout effectively represents sociocultural and economic shifts in how healthcare is delivered to the community-at-large. This includes technological innovations that revolutionized the standard of care and spawned new medical subspecialties; however, certain services were prioritized over others when new space was created. To examine investment in specific departments, the novel method of counting beds was used. Bed tallies were compared to social and political events. Kingston General Hospital between 1927 and 1958 was chosen for its complete records and multiple expansions. The study period concludes before the introduction of provincial public healthcare to allow analysis from a uniform economic perspective. Hospital renovations were shown to either redistribute or expand services, with preference for the former.

Key words: Canada, History, Hospital, Patient

Submitted 5 July 2015; Revision received 1 August 2015; Accepted for publication 1 August 2015; Published online 10 October 2015

INTRODUCTION

Urban hospitals of the 21st century are monstrous, daunting complexes sprawling several city blocks, often engulfing neighboring buildings in architectural symbiosis. The result is an intricate layout of labyrinthine corridors and intermediary wings linking old and new. Each expansion represents an evolving standard of healthcare. Technological innovations in imaging and laboratory medicine, which often demand large operating spaces in themselves, spawned the emergence of new medical specialties: cardiology, radiology, oncology, ophthalmology, and the list goes on. But smaller, community hospitals could not afford to offer such a plethora of services. Expectations fell on urban hospitals to become epicenters of specialized care for large catchment areas, not to mention the added benefits of increased revenue, government funding, prestige, and academic excellence. So, urban hospitals continually expanded, transforming once solitary buildings into agoras of medical and surgical subspecialties seen today. Structural organization then serves as an historical account of healthcare’s evolution. This paper will explore this history through a novel method of counting hospital beds as a longitudinal map of hospital investment in individual departments. I will relate local and national events to the provision of hospital services, and observe the impact of restructuring on the trajectories of specialties. Did the advent of new departments result in the closure of others? Did new specialties foster competition for existing space? Or did they necessitate expansion?

In order to study this successfully, I required an institution that met the following criteria: (1) initially possessed fewer than 3 departments, (2) grew to greater than 13 departments at any time, (3) continuous operation, (4) began as a single building, (5) currently exists as a main site comprised of at least 4 buildings, wings, or equivalent expansions, and (6) available archives. Kingston General Hospital (KGH) has operated continuously since opening as a charity hospital in 1845. The solitary Main Building was constructed 10 years earlier, initially used as Canada’s first Parliamentary building from 1941 to 1944 before the capital moved to Montreal, then Ottawa. Thirteen buildings now comprise the main site with a further 24 regional affiliate and satellite sites (Figure 1). Though only a single general department in 1845, KGH now houses 21 specialties and services. And, with the acquisition of Canada’s first X-ray machine in 1886 and Ontario’s first Cancer Clinic in 1947, KGH served as a pioneer medical institution, effecting the ambitions and modeling of other Ontario hospitals. Furthermore, its archives are a rich resource.

With fires, financial instability, intractable students, and political controversy riddling its history, many scholars have similarly delved into its archives. Most notable is Margaret Angus, who created the KGH Archives beginning in 1971. She catalogued much of its primary materials while publishing a fundamental two-part series on the Hospital’s history from 1832 to 1992.2,3 Many refer to Angus’ works as a starting point for their research. Among them was James A. Low, who focused on early infection prevention strategies pertaining to obstetrical patients.2 Ellen Barton explored the fundamental role of volunteers in KGH’s development,4 while James A. Wishart wrote of the nursing students’ retaliatory
behavior at a time when nursing residences meant strict regulations and demanding work.\(^5\) Haust and colleagues (2009) compiled a detailed history of the Department of Pathology, at Queen’s University and both teaching hospitals, including principal faculty and space allocations for laboratory facilities.\(^6\) Evidently, KGH is a rich resource in the genre of Canadian hospital history, a genre developed through the contributions of several noteworthy historians akin to Angus. JTH Connor consults a myriad of resources in telling the story of Toronto General Hospital’s transformation over almost two centuries.\(^7\) David Gagan’s account of Owen Sound General Hospital is viewed as a model of hospital social history.\(^8\) He later worked with his wife, Rosemary Gagan, to describe the metamorphosis of the modern Canadian hospital between 1890 and 1950.\(^9\) These were influenced by international works in hospital history, specifically in England and the United States of America, where the delivery of healthcare operates similar to Canada.\(^10\)-\(^13\) While all accounts mention bed totals, none trend bed tallies as a measure of specialty–specific growth, asserting this study’s methodology as novel.

Hospital beds are a more informative measure of hospital expansions than square footage. While loose guidelines like “allow one thousand cubic feet of area to each patient” emerged, square footage fails to account for the instituted bed spacing and for the multipurpose use of space.\(^14\) Rather, hospital beds more accurately show patient density. Annual bed totals reflect both current and anticipated needs, which fluctuate stochastically. Bed requirement estimations are multifactorial involving population size, admission rate, average duration of stay, and intensity of care.\(^15\) Population size is the determining factor from a government’s perspective, as their goal in funding hospital expansions was to provide a certain number of beds per 1,000 people. The 1943 New York Hospital Survey recommended 6 beds per 1,000 people.\(^16\) The Hill Burton Act of 1946 later recommended 4.5 beds per 1,000 people, although even by 1948 there were only 2.8 beds per 1,000 population in the United States.\(^16\) But these were American guidelines. In 1945 Canada, there were an average of 4.94 beds per 1,000 people with the most beds dedicated to general adult (3.47) and tuberculosis (0.98).\(^17\) By 1972, the province of Ontario had a target of 4.0 and 4.5 per 1,000 beds in Southern and Northern Ontario.\(^18\) These targets provide tangible goals; however, unprecedented large-scale events can strain hospital capacity, thereby rendering these targets an underestimation of actual need. The result is the rapid and sometimes haphazard construction of new accommodations, such as the fever sheds for the 1847 Canadian typhus epidemics.\(^19\) Sheds were constructed in three loca-

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**Figure 1:** Map of Kingston General Hospital 2013.
tions: at KGH, the brewery wharf, and contentiously close to local homes on King Street. It is estimated that, during the height of the epidemic in July 1847, the hospital population jumped by 100 to over 400 patients, as 150 new cases were admitted and 53 others died. The insufficiency and overcrowding of accommodations ultimately led to 1,200 deaths of locals and immigrants.

Bed totals are resource dependent. Square footage is finite and so physically limits the number of beds. Finances decide the construction of new buildings and the furnishings therein. For instance, the cost to furnish a hospital room in 1929 was $323.00 plus a $50.00 annual maintenance fee (Figure 2). Funds were amassed from a combination of donations, sponsorships, hospital revenue, government funding, and grants. The Women’s Aid was fundamental in hospital fundraising and proudly supplied room furnishings like linens. Most importantly, the number of functional beds is determined by the number of available nurses and physicians to staff them. The 1920’s heightened awareness of staffing requirements, as privacy became the new commodity, a means of establishing one’s socioeconomic status. Hospital renovations emphasized private arrangements compared to large wards. “Ward beds represented only 7 percent of the total beds designed for American Hospitals in 1928; in contrast, 21% of the new beds were in small wards, 23% in semiprivate rooms, and 48% in single rooms.” Nurses could no longer supervise large cohorts of patients, but were rather scattered in smaller rooms across the hospital. Additional nurses were hired at the expense of consumer-patients, who paid premiums for private rooms. Staffing remains a contemporary factor limiting hospital provisions.

METHODS

Primary data was collected from KGH Annual Reports 1905 to 1962 inclusive. Reports outside this period were intermittent or lacked the desired information. This study focuses on years 1927 to 1958 owing to the continuity and completeness of records. This study concludes before the introduction of public health insurance in 1959, allowing the data to be analyzed from a uniform perspective. Data collected from the Annual Reports includes: average duration of stay, total number of patients, total number of beds, type of bed, location of bed, patient day service, and bed occupancy rate (when available). Data were further subdivided into inpatient–outpatient and public–private where applicable.

During this period, KGH offered 4 room styles: public room with 8 or more beds (Figure 3), semi-public room with 4 beds (Figure 4), semi-private room with 2 beds (Figure 5), and private room with 1 bed.

BED TALLIES

The total number of beds staffed for use in KGH (excluding the Isolation Hospital) between 1927 and 1958 is shown in Figure 6. Unstaffed beds were determined from comments in annual reports, and subtracted from the total. Red markers on the graph indicate the opening of a new or renovated building. Yellow markers denote surveys or policies influencing bed totals.

The total begins in 1927 at 255 beds, nearly doubling to 486 beds by 1958. The largest increase is observed between 1930 and 1932 following the completion of renovations of the Main and Watkins Buildings in May 1931. Planning began 15 years earlier with renovations starting in 1929. Given the Wall Street Crash of 1929, this seems a suboptimal time to pursue new constructions; however, Kingston was not immediately affected by Black Tuesday because of its numerous institutional employers. And KGH owned few investments so its monetary losses were minimal. The hospital would not abandon its 15-year project so close to its completion. The new Main and Watkins Building opened with 69 private and semi-private beds in general adult wards, upping the 53 beds originally touted in the 1927 Annual Report. Then, a further 56—in both public (37) and private (19) wards—were added the following year, totaling 125 new beds from a single renovation! Perhaps this increase was excessive. Of the now 400 beds, “two floors representing a bed capacity of 40 [were] not in service” due to understaff-
ing and “instead were available for future expansion.”\textsuperscript{14} This issue assumedly resolves as no such staff shortages are mentioned in the 1933 Annual Report.

KGH lost its financial foothold with the Great Depression. The hospital had an operating deficit of more than $10,000 by 1932.\textsuperscript{14} By 1934, “income from pay patients dropped $15,000 in one year and continued to decline.”\textsuperscript{15} To avoid crippling debt, KGH needed new strategies to increase revenue. Employees agreed to return 5 percent of their wages for 6 years, an alternative preferable to unemployment.\textsuperscript{4} The KGH Auxiliary promoted fundraisers like the mother-daughter tea party and resurrected the Annual Garden Party in 1936 after a 27-year hiatus.\textsuperscript{4} The Community Cooperative Group Hospital Plan (CCGHP) was offered as a health insurance buy-in, which will be discussed later. The hospital introduced new services that were not offered at all other institutions. The 1930’s saw the first Departments of Cardiology and Urology responsible for the outpatient Heart Clinic and Fever Therapy Unit (for treating neurosyphilis cases), respectively. The first full-time anesthetist, Dr. William Campbell from Mayo Clinic in Rochester, Minnesota, was hired. The Department of Radiology was bestowed with one of three Ontario Institutes of Radiotherapy in 1933. Radiology became incredibly lucrative, even while providing free X-rays to 48 percent of the 11,768 cases seen in 1939.\textsuperscript{14} With

![Figure 3: Large public ward in Kingston General Hospital with 14 beds. Permission for reproduction was obtained from KGH.](image-url)

![Figure 4: Semi-public ward at Kingston General Hospital. Permission for reproduction was obtained from KGH.](image-url)
relative financial stability, a whole series of clinics opened: dental, psychiatric, venereal disease, and tuberculosis among others. And by 1942 KGH housed a Blood Bank so active it "strained accommodation."1 Despite the struggles common to the decade, the hospital administration showed great determination and ingenuity, earning the reputation as "one of the best equipped, organized, and managed institutions in Ontario."1

One would presume that the bed total would mirror the expansion of medical services, or at least remain stable. However, the bed total decreases to a nadir of 324 in 1939. According to the Annual Reports, this decrease does not represent staff shortages (which would translate to 76 unstaffed beds) but rather absolute reductions in existing beds. No report elucidates on whether the beds were sold, damaged, or transferred elsewhere. Maybe the large number of clinics increased administrative space demands for storage, check-in, waiting rooms, and offices, thereby detracting from available bed space. After all, in the early 1930’s, it was estimated that only a fifth of the entire floor space was devoted to accommodations for patients in American hospitals.10 Or possibly beds were unoccupied because of decreasing admissions and subsequently removed. The latter can be explored by analyzing patient admissions during this period (Figure 7). Inpatient totals increase

![Semi-private room in the Victory Wing at Kingston General Hospital. Permission for reproduction was obtained from KGH.](image)

![Total beds staffed for use in Kingston General Hospital between 1927 and 1958, excluding the Isolation Hospital. Red markers indicate the opening of a new or renovated building. Yellow markers denote surveys or policies influencing the number of beds.](image)
modestly. Outpatient totals, on the other hand, increase until 1935 before dramatically plummeting to 48.5% over the next 3 years, and finally doubling in 1939. This decline and refractory rise is similarly reflected in bed totals. But which was the independent variable? Were fewer outpatients admitted because there were fewer beds? Or were beds removed because fewer patients were admitted? Comparison of Figures 6 and 7 reveals similar trends with a rightward shift in bed totals by about one-and-a-half years.

Whereas outpatient admissions declined in 1935 and rose in 1939, bed totals declined in 1936 and rose in 1941. It would be fair to assume, then, that outpatient admissions influenced bed totals. With fewer than 50% of former outpatient admissions, and a corresponding decrease in revenue, the unused hospital beds could be considered a poor investment. Their removal would effectively create space for the proliferation of revenue producing services.

World War II was then declared in 1939 and Kingston saw many changes. The city became an industrial hub with the opening of Canadian Industries Ltd. (now Du Pont) and the Alcan plant for the manufacturing of nylon and aluminum products, respectively. Businesses consolidated their interests and worked closely with government agencies, creating an army of new jobs. The offer of employment and high wages enticed families from rural areas and other sectors to relocate to Kingston. The city was growing and so were healthcare demands.

KGH acknowledged the need for expansion, but the wartime economy meant new constructions were not feasible. Essential industries were subject to regulations of the War Time and Trade Board, which increased operating costs and reduced income. Other Ontario hospitals faced similar financial strains. The nearby St. Joseph’s Hospital in Peterborough was immobilized by war-born construction costs despite their need for larger facilities. Moreover were the price of new ‘miracle’ drugs and operative techniques that had become virtual necessities. KGH could only plan for the future.

The year 1942 saw the inception of The Victory Progress Plan, a 15-year plan to accumulate $800,000 and transform KGH into a 600-bed teaching hospital from their current 368 total. However, space demands urgently emerged. The lucrative Institute of Radiotherapy was funded by a government grant that terminated in 1942, and its renewal depended on the creation of new space. KGH needed space now, not in 15 years. Through small-scale renovation and redistribution, the grant was renewed for a further 2 years. More importantly, an opportunity arose to house Ontario’s first Cancer Clinic. Hospitals in Toronto, London, and Kingston competed for the opportunity. In order to supersede their competitors, KGH rationalized a 5-year plan (within the greater 15-year plan) to expand the Empire Wing into the aptly named Victory Wing. But there was still the issue of finances. In 1944, the hospital applied for and received a grant from the Department of Pensions and National Health (DPNH) for $100,000 to build the Victory Wing. The caveat was that 80 beds be set aside for veterans. Combined with a public campaign in 1945, funds were sufficient to open the Victory Wing in 1947 with Ontario’s first Cancer Clinic on the first of four floors. Private and semi-private rooms were made large enough to fit three beds if necessary: a new hybrid style between semi-public and semi-private rooms had emerged.

With the Main and Watkins Buildings’ renovations, there was an acute increase in bed totals; however, this increase is
not observed with the opening of the Victory Wing. There were 383 beds (excluding Isolation) in 1946 with the following bed totals for the next five years: 398, 426, 434, 447, and 447. The 1947 Annual Report records 106 beds in Victory Wing. But the annual totals barely scratch this purported increase, even by 1951! How is this possible? Does the Victory Wing bed total reflect “potential” beds, given that hybrid rooms could accommodate extra beds? Or were the beds staffed similar to 1932? There is a comment in the 1952 Annual Report that reads:

“Additional beds are required, but that provision in itself will not meet the situation. Additional nurses must be obtained if more beds are to be staffed. It is difficult to attract nurses when residency accommodation is not available and all nursing accommodation is drawn upon its absolute limit.”

Most staff were accommodated within the hospital, especially nurses, who were to remain unwed while employed, until 1940, when the first staff nurse married. During this time, the hospital was home and life for these women. It was where they worked, ate, socialized, and slept. Providing comfortable and safe accommodation was essential to attract both new and veteran nurses; however, KGH has historically struggled with this responsibility. The crowded hospital conditions of 1920 led to many nurses contracting such diseases as Scarlet Fever, measles and diphtheria. And even in 1951 two floor of isolation temporarily housed nurses due to strained accommodation. As Padley (1948) asserts, “Availability of staff, in particular nursing staff, is a major contemporary factor limiting the scale of hospital provision” and it appears KGH was no exception.

Another possibility is that bed totals could have exceeded patient admissions, prompting hospital administration to repurpose the space. But the 1940’s experienced a boom in healthcare needs. Between 1941 and 1948, annual admissions increased by two-thirds with a projected shortage of 10,000 acute care beds in Ontario by the end of the decade. A similar situation occurred at Vancouver General Hospital where patients were “up in a chair one day and discharged the next [with] new patients admitted before the beds even cooled.” KGH was no exception. The 1948 Annual Report claims: “The gross bed capacity, not including isolation, is 426. The hospital is being used to its full capacity.” Moreover, occupancy rates reached as high as 110% in some wards, suggesting beds may have been relocated from underused to crowded areas. For instance, 31 beds were removed from Douglas and Doran Buildings between 1945 and 1947 for relocation to the Victory Wing. Prior to its completion, “patients had to wait in the hallway; [there was] no room for storage; [and staff] could not carry out teaching in cramped quarters.” The situation demanded expansion and reorientation of services with minimal adjustments to capacity, thereby improving efficiency and patient satisfaction. Thus, hospital renovations either expand or redistribute beds and services with 1931 and 1947 constructions being examples of each.

In 1948, the federal government, under suggestion of the Minister of National Health and Welfare, Paul Martin, partnered with provincial governments to initiate The National Health Grants Programme (NHGP). The Programme provided funds for hospital construction, professional training, and public health, including a certain monetary amount per new patient bed. (“Patient” had to be specified as nurse and physician accommodations were hospital responsibilities.) However, operational costs were not addressed for almost a decade, which was when The Hospital Insurance and Diagnostic Services Act of 1957 emerged, reimbursing half the cost of hospital services under provincial insurance plans. Even so, the NHGP freed finances for investment in other areas, such as the acquisition of new equipment. Ultimately, the NHGP contributed a small increase in total beds until 1953 (Figure 6).

The 28-bed increase observed in 1948 from 1947 is multi-factorial. Ongoing rearrangements in the Victory Wing contributed minimally to this rise. Rather, this increase is a methodological repercussion. Recall that Isolation Hospital beds were excluded from this study. In 1948, Hospital administration thought “TB patients should not be in hospital due to minimal treatment and long bed care,” an arguably fair comment considering the average stay of a Sanatorium patient was 127.5 days. The Kingston Sanatorium resultantly closed, transferring patients to the twice-repurposed and newly named Ongwanada Sanatorium. KGH isolation beds decreased from 67 to 34, to 27 in subsequent years. This initial difference is nearly equivalent to the 28-bed increase in 1948 and then appears due to the chosen methodology, rather than a true increase.

By 1952, the government had invested four years at nearly $30 million per year into hospitals across the country. It was time to determine if such expenditures were justified. The Ministry of Health launched the Ontario Health Survey Committee, dividing the province into various regions and adjudicated hospital services accordingly. Kingston was the medical center of Region #4, including counties of Hastings, Lennox and Addington, Leeds and Grenville, and Frontenac. The Committee’s report found “a high ratio of beds per 1,000 residents,” recommending a very small bed increase in 1953 and none in 1954. KGH would hear none of it. The hospital responded with statistics of their own: a waitlist of approximately 300 patients, 90% bed occupancy, and “a number of days of hospital service... second only to one other region.” The number of inpatient days service was 142,199 at the time. The 1952 Annual Report stated “a need at once for about 100 beds” because:

“A day never passes but some urgent space demand arises. To meet the most urgent demand, there is a shuffle of various other services. Sometimes a new service involves several moves of others with at least one service being sacrificed.”

Examples include the openings of radioactive isotopes and cardiovascular labs in 1952, alongside expansions in the De-
Without major constructions, other services were moved or downsized. Furthermore, the Report argues that “the idea of an expanding medical centre should not be threatened by statistics.” KGH was not deterred, perhaps keen to retain their autonomy in an era of the government’s growing involvement in healthcare.

After years of campaigning and funding, the Angada Building was built in 1953 as the new children’s hospital. Contracts were drafted in 1950 at a time when “child patients were scattered throughout the Hospital wherever beds were available.” Angada was designed to hold 81 beds for children and infants, and according to the 1954 report, it did. However, bed totals only increased from 454 to 500, a deficit of 35 beds. The Angada construction then allowed both expansion and redistribution of services. Previously the Doran Building kept 40 beds for children and there were 41 bassinettes hospital-wide, all of which were relocated to Angada. Pediatrics experienced a consolidation of beds rather than increased capacity. Even still, the hospital had overestimated demand. The 1955 Annual Report was one of two reports to include occupancy rates for all KGH buildings. All floors reported occupancies greater than 78.4%, except for Angada, whose occupancy was categorized “low” with 64.9%. This is down from the 85% occupancy for children’s beds reported in 1948. KGH had relived the 1931 renovation in allotting more beds than required.

A strict redistribution may have been more advantageous as other services were highly proliferative. The Cancer Clinic cared for 4,400 cases in 1955 with an 81.7% occupancy rate, leading to its expansion on Victory 1. The Department of Physiotherapy consolidated fields of medical social service, physiotherapy, and occupational therapy. There was a new cardiopulmonary lab, and an anticoagulation service so outrageously popular it became the third largest worldwide by 1959. With successful services occupying greater areas for operations and administration, it is no surprise bed totals only modestly increased from 454 to 500 in 1954, later plateauing at 486 for the remainder of the study period.

THE ECONOMICS OF HOSPITAL BEDS

Hospitals of the early twentieth century had to strike the delicate balance between public and private beds. While a business with 75% of its income derived from patient contributions, hospitals were guided by ethical principle; they were responsible for the care of the diseased and disabled. Forming a hospital comprised of even 50% private beds was simply not permissible. In collecting data, isolation beds were included as public beds alongside nursery and children. Figure 8 shows the split between private and public beds for the study period. Generally, there are about 37% private beds and 63% public beds with the exception of two peaks—1931 to 1935 and 1948 to 1951—both affiliated with the two largest renovations. The 1948 private bed spike follows the Victory Wing opening, where only 34 of the 106 introduced beds were semi-public (on the first floor for the Ontario Cancer Clinic). The remainders were private and semi-private. Recall how bed totals modestly increased with the opening of Victory Wing, suggesting beds were removed from public wards to supply private wards. Comparing the 1945 and 1947 Annual Reports proves that 24 public beds were removed from Douglas Building and seven from Doran Building. This effectively increased the ratio of private beds before rectification in 1951.

The 1931 hike is due to the addition of 88 private beds from the Watkins and Main Buildings renovations. Though a
seemingly questionable decision during an economic crisis, from the hospital’s perspective, increasing private beds was an attempt to re-establish a financial foothold. Remember the operating deficit of $10,000 in 1932. But by that time, general consumer expenditures had dropped by a third.\textsuperscript{10} It is worth investigating if these private beds were used as intended. Bed occupancy rates would directly demonstrate trends in private bed usage during the Great Depression, but this information was only released for 1948 and 1955. Patient days, on the other hand, can work as an indirect surrogate of comparing private versus public usage (Figure 9). Patient days represent the number of days in which a patient uses hospital services. For example, 70 patients in hospital for 1 day constitute 70 patient days, and 25 patients in hospital for 2 days constitute 50 patient days. Patients are recorded as private versus public depending on their payment model and implicitly, their bed assignment.

There is a general, gradual increase in total patient days with a small hump from 1942 to 1949. There emerges a ‘double-helix’ pattern in the proportion of public versus private patient days. Public and private patient days are nearly equivalent until 1930, after which private days decline until 1934 when it begins a slow rise, eventually superseding public patient days in 1941. Private patient days then increase quickly before it declines 18% between 1947 and 1949. Afterwards, the proportions remain constant with about 44% private patient days and 56% public patient days. Interestingly, when these results are compared with Figure 8, the decline in private patient days correspond with increases in private beds. The instinctive thought is that more private beds mean more private patients. This assumes more private patients exist, which is known to be false during the Great Depression, when “patients who had once demanded the best accommodation wanted service at a more moderate price; many went into public wards and some simply did not enter the hospital at all.”\textsuperscript{14} The United States similarly experienced declines in general admissions by the hundred thousands, and patients flocking to hospitals as wards rather than private patients.\textsuperscript{10} If KGH was to divert impenetrable debt, a solution was needed at once.

Their salvation came in 1934 as the Community Cooperative Group Hospital Plan (CCGHP). KGH offered a buy-in health insurance plan for families with an annual fee affordable even to the lowest income families. Hospital services were more economically available to 80% of pay patients with moderate income.\textsuperscript{14} The plan granted subscribers a maximum of $2.50 per day for any regular service, private or semi-private room for a maximum of 10 days. Coincidentally, the cost of a basic semi-private room in 1934 was exactly $2.50. With the CCGHP, those who formerly abstained from medical care could not only afford it, but could have a private room! The plan’s success is shown by an appreciable rise in private patient days following 1934. Once again, patients—or rather healthcare consumers—were a significant source of hospital funds. Unfortunately, its success was limited. With the economy rebuilding, wages and the price of goods slowly rose. By 1938, “room price went up to $3.00 and private rooms were $3.50 to $7.00 plus diagnostic services”.\textsuperscript{14} Price adjustments to the annual fee were affected to match inflation and avoid propagating debt.

Fortunately the hospital’s reliance on the CCGHP diminished with the wartime economy. Employment and wages were up. Family members of the enlisted sought medical attention from military hospitals for subsidized care. This removed a subset of patients from KGH’s registry, especially for general admissions.

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\caption{Patient days service (divided into private and public) between 1927 and 1958.}
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those of lower economic status, who were more often ill, as they often enlisted for the supplemental income and benefits. However, total patient days significantly increase following 1942. Either hospital admissions increased, or the duration of stay did. Figure 7 shows some increase in hospital admissions during this time, though provincially it had risen by two-thirds. Duration of stay was consistent during war years, averaging 11.12 days per patient. With Kingston’s thriving industrial market came the financial freedom to choose private rooms over public wards. The large rise in private patient days attests to this. The subsequent, post-war decline can be described as a “lag period” where those who once moved to Kingston for employment gradually returned to their hometowns. Furthermore, this sustained ratio of 44% private patient days and 56% public patient days may reflect this ‘perfect balance;’ the preferred ratio for KGH to remain financially secure in a socioeconomically stable Kingston.

CONCLUSION

Hospital beds offer an objective and quantifiable method for analyzing the impact of local, national, and international events on the evolution of Canadian healthcare. Bed numbers are a multifactorial reflection of available funds, staffing, physical space, both current and anticipated health needs, standards of care, prestige, and academic excellence. Analyzing hospital beds at KGH has proven that expansions and renovations are intended to either increase capacity or redistribute services, or both. This was as evidenced by the 1931 renovations, the 1947 construction of the Victory Wing, and the 1952 Angada Building. Hospital beds were, and remain to be, a contentious topic in that there always appears a demand for more. The difficult task for hospital administrators is to determine if this demand is real, or if the real issue lies in the organization of wards.

CONFLICTS OF INTEREST

The author assumes full responsibility for this submission and ensures this article is not under simultaneous consideration for publication elsewhere. There are no conflicts of interest to declare.

SOURCE OF SUPPORT

There is no funding source to report for this manuscript.

ACKNOWLEDGMENT

This project would not have been possible without the guidance and inspiration of Dr. Jacalyn Duffin, who brings life to the history of medicine. Images were re-printed with permission from KGH archivist, Lorna Knight. We thank her for the ongoing assistance.

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