

# Hospital Closures in New Jersey: 1992 – 2008

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## ABSTRACT

This paper examines the historical developments that contributed to the closure of twenty-three percent of New Jersey's hospitals between 1992 and 2008. Through this examination, this paper determines which development contributed most significantly to New Jersey's hospital closures during this timeframe. The paper argues that following the rollback of rate setting and certificate of need in 1992, most hospitals closed due to their large portion of empty beds, while public insurers' failure to fully reimburse hospitals contributed less significantly. This paper evaluates the impacts of new medical technologies; managed care and diagnosis-related groupings; the Hill-Burton Program and demographic shifts; incomplete reimbursements to hospitals through charity care, Medicaid, and Medicare programs; the rollback of rate setting and Certificate of Need; and the burden of empty beds. These developments are analyzed individually to determine the extent to which each of them contributed to hospital closures. These developments are further analyzed in relation to each other to prove that the burden of empty hospital beds was the most significant factor contributing to this trend of hospital closures.

## Introduction

Twenty-three percent of New Jersey's hospitals closed between 1992 and 2008, reflecting a decrease from ninety-six hospitals to only seventy-four.<sup>1</sup> In 1998, half of New Jersey's hospitals lost money, and a large portion of the state's licensed hospital beds remained unoccupied.<sup>2</sup> After decades of trying to keep hospitals open with regulatory measures such as hospital rate setting and Certificate of Need (CON), the state identified six hospitals as closure candidates in 1992.<sup>3</sup> Five of the six hospitals identified closed within the next sixteen years, in addition to seventeen other hospitals.<sup>4</sup> Some hospitals that closed, such as Muhlenberg Hospital in Plainfield or Hospital Center at Orange, served areas without another hospital for miles, dramatically impacting hospital access for thousands of people.<sup>5</sup> However, the small city of Passaic had three hospitals before the closures of General Hospital Center at Passaic and Passaic Beth Israel Hospital.<sup>6</sup> Even with only one hospital remaining, Passaic's residents were still within proximity of a hospital.

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<sup>1</sup> Derek DeLia, "Hospital Closures in New Jersey: Too Many or Not Enough?," Rutgers Center for State Health Policy, December 10, 2008, <http://www.cshp.rutgers.edu/publications/hospital-closures-in-new-jersey-too-many-or-not-enough>.

<sup>2</sup> Henry J Amoroso and Terence French, "Rationalizing Beds, Services, and Payments for New Jersey Hospitals," November 2006, 7.

<sup>3</sup> Amoroso and French, 5.

<sup>4</sup> Sean Hopkins, "1997 New Jersey Hospitals," n.d.

<sup>5</sup> Ken Terry, "Who Killed Muhlenberg Hospital?" New Jersey Monthly, October 14, 2008, <https://njmonthly.com/articles/top-doctors/who-killed-muhlenberg-hospital/>.

<sup>6</sup> Hopkins, "1997 New Jersey Hospitals."

Proximity to other hospitals is only one example of the variation between the hospitals that closed, complicating the reasoning behind this trend of hospital closures.

In 1946, the federal government passed the Hill-Burton Act, which provided hospitals funds to expand and modernize their facilities. However, the Hill-Burton program did not account for the changes to the hospital industry that would ensue in the following decades. While hospital beds were the basis of the Hill-Burton program, they soon were no longer the center of healthcare. New medical technologies revolutionized healthcare, leading to the development of ambulatory care centers, decreasing the lengths of stay for hospital patients, and driving up healthcare costs. Insurance companies implemented a new managed care system, meaning insurers would compensate hospitals on a per case basis rather than on a per diem (or per day) basis. In this new compensation system, both public and private insurers implemented diagnosis-related groupings (DRGs) to determine how much to pay hospitals for a certain type, or grouping, of a case. Additionally, the burden of Medicaid (public insurance for those with limited income) and charity care (state reimbursement to hospitals who treat patients that cannot pay) on hospitals became greater, as these programs did not fully reimburse hospitals. While these developments happened over decades, the rapid rollback of the state's hospital regulatory measures in 1992, namely hospital rate setting and CON, marked the beginning of this period of hospital closures.

With such a significant number of changes to the American hospital and healthcare systems in the latter half of the twentieth century, healthcare experts debate to what extent each of these factors contributed to hospital closures. In light of this debate, this paper aims to determine the main factor that led to the closure of twenty-three percent of New Jersey's hospitals between 1992 and 2008. Every hospital has a different story of closure; a singular development did not lead to the closure of all twenty-two hospitals. However, the developments impacted hospitals in nearly the same way: hospitals had a large portion of empty beds. Following the rollback of rate setting and CON in 1992, most hospitals closed due to their large portion of empty beds, while public insurers' failure to fully reimburse hospitals contributed less significantly.

## **Methodology**

Through an analysis of major works, journal articles, U.S. census data, hospital data, newspaper articles, and interviews with hospital executives of the time, this paper examines the extent to which each major healthcare development between the passage of the Hill-Burton Act in 1946 to the rollback of New Jersey's hospital regulatory measures in 1992 contributed to hospital closures between 1992 and 2008. This paper uses a combination of sources that describe healthcare developments in the United States and New Jersey-specific sources. This paper centers around the developments outlined in a 2020 interview with Jeffrey Moll (former CEO of Passaic Beth Israel Hospital), a 2021 interview with Terence French (Vice President and Chief Strategy Officer of Atlantic Health System), the New Jersey Commission on Rationalizing Health Care Resources' final report, and Terence French and Henry Amoroso's report, "Rationalizing Beds, Services, and Payments for New Jersey Hospitals." This paper uses additional sources to evaluate the importance of each factor in contributing to hospital closures. Ultimately, this examination determined which factor contributed most significantly to the closures.

## **New Medical Technologies and Their Effects**

In the latter half of the twentieth century, new medical technologies became an integral part of the American healthcare system. Medical technology in and of itself did not lead to the financial distress of hospitals, but its three main effects did: reduced inpatient (or overnight) stays, increased healthcare costs, and the rise of ambulatory care centers. The most significant way that new medical technologies contributed to hospital closures was their reduction of the length of inpatient stays.

New medical technologies were the driving force behind the growing irrelevance of hospital beds. What would have been an extended hospital stay for chest pain in the 1950s and 60s soon became a much shorter stay following the introduction of medical technologies such as MRI and CT scanners. Medical technologies also eliminated the need for exploratory surgery, which required an inpatient stay of days, if not weeks.<sup>7</sup> Because medical technologies reduced the average length of inpatient stays, hospitals needed fewer beds to serve their patients.<sup>8</sup> Economists Theodore Keeler and John Ying argue, “the causes of this declining hospital use are not hard to find,” attributing it solely to medical technologies’ reduction of hospital bed demand and the average length of hospital stays.<sup>9</sup> While other developments have certainly reduced hospital bed demand, new medical technologies created the initial possibility for reduced inpatient stays.

New medical technologies accounted for a major part of the ever-growing cost of healthcare. Not only was the equipment itself expensive but training medical professionals to operate the technology also posed a financial burden.<sup>10</sup> These expensive operations soon played a fundamental role in the American healthcare system but continued to drive up hospital costs.<sup>11</sup> However, medical technologies also gave rise to a less expensive method of healthcare delivery: ambulatory care. Ambulatory care centers treated patients outside of hospitals on an outpatient basis (meaning patients did not stay overnight). Medical technologies created the possibility for doctors to treat patients in ambulatory care centers instead of only in the hospital. Professors Howard Berliner and Robb Burlage argue that ambulatory surgery’s “initial growth was largely spurred by technological developments in anesthesia that allowed for complete awakening within 12 hours,” eliminating the need for an inpatient bed at a hospital.<sup>12</sup> According to Berliner and Burlage, ambulatory care is significantly cheaper than care at hospitals: “the fees of the average urgent care center are generally 40-60 percent lower than typical emergency room fees.”<sup>13</sup> The impact of technology on rising medical costs was not as significant as its reduction of hospital bed demand because medical technology also created cheaper alternatives for receiving care.

The rise of ambulatory care centers took some business away from hospitals but did not have a significant impact on hospital capacity. Healthcare economist Uwe Reinhardt argues that ambulatory care centers were “eroding hospitals’ fiscal health by attracting highly profitable services away from hospital outpatient departments.”<sup>14</sup> Additionally, if wealthier patients sought ambulatory care instead of hospital care, hospitals could no longer charge these patients higher rates to make up for uncompensated care in a practice known as cost-shifting.<sup>15</sup> While the rise of ambulatory care put some financial stress on hospitals, it did not take away from a primary source of hospital revenue: inpatient care. Healthcare policy expert Terence French argues that “the rise of ambulatory care facilities affected the

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<sup>7</sup> Jeffrey Moll, Closure of Muhlenberg Hospital, November 2, 2020.

<sup>8</sup> Amoroso and French, “Rationalizing Beds, Services, and Payments for New Jersey Hospitals,” 11.

<sup>9</sup> Theodore E. Keeler and John S. Ying, “Hospital Costs and Excess Bed Capacity: A Statistical Analysis,” *The Review of Economics and Statistics* 78, no. 3 (1996): 470, <https://doi.org/10.2307/2109794>.

<sup>10</sup> Robert Cunningham and Robert M Cunningham, *The Blues: A History of the Blue Cross and Blue Shield System* (DeKalb, Ill.: Northern Illinois University, 1997), 91.

<sup>11</sup> Cunningham and Cunningham, 175.

<sup>12</sup> Howard S. Berliner and Robb K. Burlage, “The Walk-In Chains: The Proprietarization of Ambulatory Care,” *International Journal of Health Services* 17, no. 4 (1987): 586.

<sup>13</sup> Berliner and Burlage, 587.

<sup>14</sup> Uwe E. Reinhardt, “New Jersey Commission on Rationalizing Health Care Resources,” January 24, 2008, 119, [https://www.nj.gov/health/rhc/documents/entire\\_finalreport.pdf](https://www.nj.gov/health/rhc/documents/entire_finalreport.pdf).

<sup>15</sup> Bruce Siegel, Anne Weiss, and Diane Lynch, “Setting New Jersey Hospital Rates: A Regulatory System Under Stress,” 1991, 603.

payer mix and therefore compensation paid to hospitals but really should not have affected the inpatient need.”<sup>16</sup> Although the rise of ambulatory care centers created some financial hardship for hospitals, this development ultimately played a minor role in hospital closures because it did not impact the length of inpatient stays or the number of hospital beds filled.

## Managed Care and Diagnosis-Related Groupings (DRGs)

In response to the rising costs of healthcare, insurance companies implemented managed care in the early 1980s, reimbursing hospitals on a per case basis according to DRGs. Under the per diem reimbursement system that preceded managed care, hospitals liberally used resources with little regard to cost because they had no incentive to use their resources sparingly.<sup>17</sup> Hospitals would make money under the per diem system as long as they had full beds, encouraging them to implement nonrestrictive admissions policies.<sup>18</sup> According to Sanford Weiner et al., under the per diem system “New Jersey’s inner-city hospitals began accumulating significant deficits.”<sup>19</sup> Under managed care, hospitals received a set amount of money per case from insurance companies regardless of how much they actually spent. Hospitals benefited if they spent less money than their reimbursement but would lose money if they spent more than their reimbursement. Managed care contributed to hospital closures because it reduced the length of hospital stays but did not lead to a greater volume of uncompensated care.

Managed care had a positive effect on hospital finances, thus not contributing to the financial burden of uncompensated care. Anti-DRG advocates such as Bob Herbert expressed that the generalizations of DRGs cannot meet a patient’s individual needs. In his *New York Times* Opinion Article, “Mugged in the Hospital,” Herbert tells the story of a woman whose insurance company would not reimburse the hospital for the extra day of care her doctor ordered.<sup>20</sup> Especially when patients could not pay for care their insurance companies refused to reimburse, hospitals had to pay. However, DRG advocates have argued that DRGs do not lead to hospitals’ poor financial performance because the “severity [of illness] should average out and not affect total reimbursement.”<sup>21</sup> Even if a hospital’s case mix included on average more severe cases than other hospitals, this rarely was a financial burden because DRGs were hospital-specific.<sup>22</sup> Healthcare experts Bruce Seigel et al. argue that “there is good evidence that DRG reimbursement led to a dramatic improvement in the financial position of virtually all New Jersey hospitals, with urban hospitals benefiting the most.”<sup>23</sup> DRGs and managed care generally benefited the financial standing of New Jersey’s hospitals, thus their effects on reimbursement policies did not play a major role in hospital closures.

While DRGs and managed care benefited the financial standing of many New Jersey hospitals, the managed care system led to reduced inpatient stays. Weiner et al. argue that DRGs reducing the length of inpatient stays was “by far the most widespread change in New Jersey hospitals.”<sup>24</sup> These additional days were not necessary to ensure

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<sup>16</sup> Terence French, New Jersey Hospital Closures, June 7, 2021.

<sup>17</sup> Sanford L. Weiner et al., “Economic Incentives and Organizational Realities: Managing Hospitals under DRGs,” *The Milbank Quarterly* 65, no. 4 (1987): 463, <https://doi.org/10.2307/3349977>.

<sup>18</sup> Cunningham and Cunningham, *The Blues*, 102.

<sup>19</sup> Weiner et al., “Economic Incentives and Organizational Realities,” 463.

<sup>20</sup> Bob Herbert, “Mugged In the Hospital,” *The New York Times*, August 9, 1996, sec. Opinion, <https://www.ny-times.com/1996/08/09/opinion/mugged-in-the-hospital.html>.

<sup>21</sup> Weiner et al., “Economic Incentives and Organizational Realities,” 479.

<sup>22</sup> William C. Hsiao and Daniel L. Dunn, “The Impact of DRG Payment on New Jersey Hospitals,” *Inquiry* 24, no. 3 (1987): 213.

<sup>23</sup> Siegel, Weiss, and Lynch, “Setting New Jersey Hospital Rates: A Regulatory System Under Stress,” 612.

<sup>24</sup> Weiner et al., “Economic Incentives and Organizational Realities,” 476.

patients' good health. Studies show that health outcomes for patients with congestive heart failure, colon cancer, diabetes, and hypertension were nearly the same between managed care and fee-for-service systems.<sup>25</sup> The irrelevance of additional hospital days in determining health outcomes further highlights the shrinking necessity of hospital beds in the 1980s. The introduction of managed care led to hospital closures because of its impact on hospital bed demand, not because of the financial impact of its reimbursement policies.

## The Hill-Burton Program and Demographic Shifts

The Hill-Burton program built upon a hospital system in which beds were a measure of success. The program provided three billion dollars' worth of grants to construct, expand, and modernize hospitals. The program's goal was to create 4.5 inpatient beds per 1,000 people; however, by the 2000s, New Jersey only needed 2.5 inpatient beds per 1,000 people.<sup>26</sup> Because the Hill-Burton program was implemented before reduced inpatient stays brought about by the rise of medical technologies and managed care, thousands of hospital beds created in the 1950s and 60s were no longer needed in the 1980s and 90s. Without accounting for these changes, the Hill-Burton program created an excess capacity of beds.<sup>27</sup> This excess capacity, or, more specifically, excess capacity in areas where the beds were unnecessary, led to hospitals' financial distress.

In addition to the new medical technologies and managed care systems that reduced the length of inpatient stays, massive demographic changes in New Jersey changed the need for hospitals in certain areas – changes that did not influence the implementation of the Hill-Burton program. Healthcare policy experts Henry Amoroso and Terence French argue that suburbanization in the 1950s and 60s “left many hospitals in urban and old suburban areas of New Jersey with empty beds and poor financial performance.”<sup>28</sup> Between 1950 and 2000, all but three of the eighteen towns where hospitals closed experienced population growth over ten percentage points fewer than the New Jersey average (which had a 74 percent increase in population). One-third of these towns experienced a population decrease.<sup>29</sup> According to Uwe Reinhardt, New Jersey's oversupply of hospital beds was most pronounced in the northeastern region of the state.<sup>30</sup> Sixteen of the twenty-two hospitals that closed were located in this region.<sup>31</sup>

Despite the role that the Hill-Burton program played in creating additional hospital beds, it was not necessarily the primary reason why New Jersey had too many beds. In a 1974 study conducted by economists Lester and Judith Lave, their data did “not suggest that the Hill-Burton program contributed to excess [hospital] capacity.”<sup>32</sup> Attorneys Sallyanne Payton and Rhoda Powsner further argue that the Hill-Burton program had only a “slight” influence on the construction and expansion of hospitals in metropolitan areas, like those in northeastern New Jersey, because the program mostly provided funding to hospitals in rural areas.<sup>33</sup> Regardless of whether these hospitals

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<sup>25</sup> David J Rothman, *Beginnings Count: The Technological Imperative in American Health Care* (New York, NY: Oxford Univ. Press, 1997), 163.

<sup>26</sup> Amoroso and French, “Rationalizing Beds, Services, and Payments for New Jersey Hospitals,” 11.

<sup>27</sup> Cunningham and Cunningham, *The Blues*, 92.

<sup>28</sup> Amoroso and French, “Rationalizing Beds, Services, and Payments for New Jersey Hospitals,” 11.

<sup>29</sup> Albert Kroll, “New Jersey Population Trends 1790 to 2000,” August 2001.

<sup>30</sup> Reinhardt, “New Jersey Commission on Rationalizing Health Care Resources,” 3.

<sup>31</sup> Hopkins, “1997 New Jersey Hospitals.”

<sup>32</sup> Judith R Lave and Lester B Lave, *The Hospital Construction Act: An Evaluation of the Hill-Burton Program, 1948-1973* (Washington, D.C., 1974), 38.

<sup>33</sup> Sallyanne Payton and Rhoda M. Powsner, “Regulation through the Looking Glass: Hospitals, Blue Cross, and Certificate-of-Need,” *Michigan Law Review* 79, no. 2 (1980): 236, <https://doi.org/10.2307/1288275>.

expanded with Hill-Burton funds, hospitals still had excess beds that became unnecessary due to the demographic changes that followed only a few years after the post-World War II hospital building craze.

## Incomplete Reimbursements: Charity Care, Medicaid, Medicare

The cost of uncompensated care rapidly rose from 239 million dollars in 1983 to over 700 million dollars in 1990.<sup>34</sup> Public insurers such as charity care, Medicaid, and Medicare reimbursed healthcare providers at rates sometimes far below the cost of care.<sup>35</sup> The burden of paying for this care fell on hospitals when patients could not pay, and insurers refused to pay.<sup>36</sup> This trend accelerated in 1988 when Medicare began using its own DRG system that often paid hospitals lower rates than private insurers' DRGs.<sup>37</sup> The burden of uncompensated care and charity care, more specifically, impacted hospitals in low-income areas with a large volume of indigent patients (or patients who were not able to pay for care). While it may seem as though the financial burden of uncompensated care would lead to hospital closures, there is no direct evidence indicating this.<sup>38</sup>

In some of New Jersey's urban hospitals, Medicaid, Medicare, and charity care patients made up more than 50 percent of the hospital's payers, placing a large financial burden on hospitals and preventing them from shifting these costs to wealthier patients.<sup>39</sup> Additionally, in 2000, the average household income in New Jersey was \$55,145, while the average household income in towns where hospitals closed was only \$42,237.<sup>40</sup> As shown by these data, many hospitals that closed served low-income communities which had high volumes of indigent patients. Indigent patients often require more expensive care than those who have adequate insurance, furthering the burden on hospitals. Bruce Siegel et al. argue that hospitals in low-income areas treated "more complex, resource-intensive cases but were subject to the same ceilings and negotiations as other hospitals."<sup>41</sup> Indigent patients often entered the hospital through its most expensive department – the emergency room – because they rarely sought preventative care. In the emergency room, hospitals treated "potentially preventable, high-cost encounters."<sup>42</sup> The lack of access to preventative care heightens the cost burden of uncompensated care on hospitals, ultimately leading to hospital closures in low-income areas. Even Jersey City and Newark, two cities with a declining population from 1950 to 2000, had hospitals that closed with nearly full capacity. Greenville Hospital and Saint James Hospital had 76 and 78 percent of their beds filled, respectively, which was above the New Jersey average of 72 percent.<sup>43</sup> Considering that both of these hospitals had a high volume of charity care patients and a large portion of full beds, incomplete reimbursement contributed more to the closures of these hospitals than it did to hospitals with a significant portion of empty beds.

Despite the cost burden that uncompensated care put on hospitals, not all hospitals that closed faced this burden. Even hospitals facing this burden did not necessarily close because of uncompensated care. Terence French argues that hospitals having a large volume of charity care was not directly related to their closure. "I don't think

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<sup>34</sup> Siegel, Weiss, and Lynch, "Setting New Jersey Hospital Rates: A Regulatory System Under Stress," 616.

<sup>35</sup> Reinhardt, "New Jersey Commission on Rationalizing Health Care Resources," 107.

<sup>36</sup> Samuel Bookheimer, "Uncompensated Care and the Hospital: A Political-Economic Perspective," *Journal of Health and Human Resources Administration* 11, no. 3 (1989): 330.

<sup>37</sup> Siegel, Weiss, and Lynch, "Setting New Jersey Hospital Rates: A Regulatory System Under Stress," 628.

<sup>38</sup> Bookheimer, "UNCOMPENSATED CARE AND THE HOSPITAL," 334.

<sup>39</sup> Amoroso and French, "Rationalizing Beds, Services, and Payments for New Jersey Hospitals," 17.

<sup>40</sup> "2000 Census of Population and Housing," May 2003.

<sup>41</sup> Siegel, Weiss, and Lynch, "Setting New Jersey Hospital Rates: A Regulatory System Under Stress," 628.

<sup>42</sup> Pamela Jo Johnson et al., "Disparities in Potentially Avoidable Emergency Department (ED) Care: ED Visits for Ambulatory Care Sensitive Conditions," *Medical Care* 50, no. 12 (2012): 1020.

<sup>43</sup> Reinhardt, "New Jersey Commission on Rationalizing Health Care Resources."



they're causally related. I think they're demographically related," French commented in an interview. He also mentioned that there were "hospitals that have closed without a big charity care complement to them," listing Pascack Valley Hospital as an example.<sup>44</sup> High volumes of uncompensated care and hospital closures were demographically related because low-income areas with a high volume of indigent patients also likely faced a population decline in the era of suburbanization. The closure of Muhlenberg Hospital also reflects how a large volume of charity care patients may have appeared to be the reason for hospital closure even when it was not. In an article about the closure of Muhlenberg Hospital in *New Jersey Monthly*, Ken Terry reported that "Charity Care and Medicaid patients accounted for 18.2 percent of Muhlenberg's volume in 2006, well above the norm for suburban hospitals in the region." While it may seem as though Muhlenberg's volume of charity care patients led to its closure, towards the end of its operation Muhlenberg's parent company, Solaris Health System, put policies in place that emptied Muhlenberg's beds. Most notably, Solaris encouraged insured patients to have tests and elective procedures done at the other hospital under Solaris' management (JFK Hospital), while the uninsured remained at Muhlenberg.<sup>45</sup> Solaris' policies ultimately led to the high volume of charity care patients at Muhlenberg, perhaps as a way to eliminate unnecessary hospital beds. While incomplete charity care reimbursement was a burden on hospitals, it impacted hospital closures to a lesser extent than empty hospital beds.

## Rate Setting and Certificate of Need

The end of hospital rate setting and rollback of CON in 1992 was the catalyst for New Jersey's hospital closures. Under the rate setting system, the state regulated the rates hospitals charged insurers. When a hospital performed poorly, the state would charge insurance companies extra to financially support the hospital. CON made it so healthcare facilities needed to prove a construction project would benefit the community to gain approval from the state to proceed. The state's aim in implementing CON was to prevent duplicate facilities and excess hospital beds. Rate setting and CON were not the driving forces behind hospital closures because they did not contribute significantly to excess capacity, rising costs, or incomplete reimbursement for care. However, Terence French argues that competition between hospitals was "frozen in time" for the eighteen years rate setting and CON were in place.<sup>46</sup> Excess capacity, rising costs, and incomplete reimbursement for care might have led to hospital closures over two or three decades if it were not for these regulatory measures. However, the rapid rollback of rate setting and CON made it so hospitals "had a short period of time to accommodate thirty years of demographic change and medical pathology change."<sup>47</sup> Additionally, hospitals now were in full competition with one another with limited government intervention.<sup>48</sup> The rollback of rate setting and CON was not the underlying reason why hospitals closed, but it was the reason why hospitals closed rapidly and in large numbers in the 1990s and 2000s.

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<sup>44</sup> French, New Jersey Hospital Closures.

<sup>45</sup> Terry, "Who Killed Muhlenberg Hospital?"

<sup>46</sup> French, New Jersey Hospital Closures.

<sup>47</sup> French.

<sup>48</sup> French.

## The Burden of Empty Beds

The cost burden created by empty beds caused hospitals to close. Estimates say that excess capacity cost New Jersey's hospitals nearly one billion dollars in 1992.<sup>49</sup> For example, both United Hospitals Medical Center in Newark<sup>50</sup> and Memorial Medical Center of South Amboy closed because they were over-bedded.<sup>51</sup> When some hospitals were about to close, over a quarter of their volume disappeared, reflecting a bed surplus. The availability of beds in struggling hospitals caused greater inpatient utilization than would occur under ordinary circumstances.<sup>52</sup> This statistic highlights how many of these hospital beds were not necessary to community health and that hospitals only admitted some patients for the hospital's survival. This statistic further demonstrates a key limitation of hospital capacity data in determining the role that lack of hospital necessity played in the closure of hospitals. Even if hospital beds appeared filled, the beds could still be unnecessary in ensuring the health and wellbeing of the surrounding community.

## Conclusion

While incomplete reimbursements from public insurers played a critical role in hospital closures, the large portion of empty beds was the main factor contributing to the closure of twenty-three percent of New Jersey's hospitals between 1992 and 2008. The majority of changes to the American healthcare system in the latter half of the twentieth century resulted in the lessened demand for hospital beds. Developments such as new medical technology, the rise of ambulatory care, and the implementation of managed care did not lead to hospital closures themselves. However, these developments all reduced the length of inpatient stays and, therefore, the demand for hospital beds, thus leading to hospital closures. Because these developments affected all hospitals in nearly the same way, the location of hospitals and demographic shifts were the determining factors regarding which hospitals closed specifically. Hospitals mostly closed in areas with a high concentration of hospital beds (like in the northeastern region of the state) or areas that experienced a slowly growing or declining population. If the location of hospitals and demographic shifts were the reasons why hospitals closed where they did, the rollback of rate setting and CON were the reasons why hospitals closed when they did. If it were not for these regulatory measures, the changes to healthcare in the latter half of the twentieth century would have resulted in the gradual closing or merging of hospitals. Instead, because hospitals suddenly became each other's competitors in 1992, hospitals rapidly closed. While several factors contributed to hospital closures, they almost all boil down to the reduced need for hospital beds.

Although incomplete reimbursements from public insurers contributed to hospital closures, this was generally not the main factor. It is difficult to prove whether or not high volumes of charity care patients and hospital closures were demographically or causally related. Incomplete reimbursement for care certainly was a large burden on hospitals, which is why it was still a contributing factor to their closure. The role that incomplete reimbursement played in hospital closures was not as clear or conclusive as to the role that the reduced demand for hospital beds was.

While this paper describes the broad, general reasons for hospital closures, it does not go into depth about the closure of each specific hospital. There were general factors similar among all the hospitals that closed, but there were certainly exceptions and variations to the argument put forth by this paper. Further research should include a more data-heavy analysis of hospital finances, healthcare policy, and demographic trends. However, the analysis of developments that similarly affected hospitals is key to understanding how healthcare delivery changed in the past

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<sup>49</sup> Amoroso and French, "Rationalizing Beds, Services, and Payments for New Jersey Hospitals," 11.

<sup>50</sup> Terry Pristin, "United Hospital Closing," *The New York Times*, February 20, 1997, sec. New York, <https://www.nytimes.com/1997/02/20/nyregion/united-hospital-closing.html>.

<sup>51</sup> T. Rees, "New Jersey Hospital Wins the Battle, but Loses the War," *Profiles in Healthcare Marketing* 16, no. 3 (June 2000): 1, 4-9.

<sup>52</sup> French, New Jersey Hospital Closures.



and how it might change in the future. This paper shows that healthcare delivery constantly changes, and healthcare systems must be able and willing to adapt. Although, rapid changes to healthcare delivery have a far more negative impact than gradual changes. Therefore, the state, hospitals, and insurers should seek to implement policies that embrace change without changing fundamental modes of healthcare delivery overnight.

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