In 1798, William Blair, a British surgeon, asserted, "The health of an army must . . . be of equal importance with its existence." The truth of his claim was often manifest in the career of the British Army in North America during the eighteenth century. The army that Lieutenant-General John Burgoyne surrendered at Saratoga in October 1777 was just a shadow of the one that he had marched out of Quebec in June. Battles, sickness, and fatigue had effected the change. The same can be said of the army that Lieutenant-General Charles Cornwallis marched through the Carolinas and Virginia, to its ultimate submission at Yorktown, in 1780–1781. And so it went. Armies evaporated, expeditions were aborted, and garrisons were rendered incapable of defense, all because of illness and injury. In an attempt to counter the decimation, British line officers worked in partnership with medical officers. The relationship was not always smooth, and strategic considerations easily trumped medical ones, since, of course, the army existed to serve military ends, not to keep soldiers healthy.
Nevertheless, the two classes of officers exerted a highly positive effect on the health of the troops. The nature and the value of their relationship is manifest even in the adverse and novel circumstance that they faced in the 1750s, that of service on the American frontier.

Two military enterprises on the frontier provide case studies that represent the core of this article. There are evident similarities between the Braddock expedition of 1755 and the Forbes expedition of 1758. Both had as their mission the taking of Fort Duquesne in western Pennsylvania, the most visible expression of French influence in the Ohio Valley. Both Major-General Edward Braddock and Brigadier-General John Forbes had under their command units of the British Army that prior to their respective expeditions were untested in wilderness warfare, and the total number of regulars was similar. Braddock commanded the 44th and 48th regiments of Foot, while the core of Forbes's army consisted of the 77th Foot (prior to its renumbering in June 1758, the 1/63rd, or first battalion, 63rd Foot), a large Highland regiment that was raised and commanded by Colonel Archibald Montgomery; and four companies of the 1/60th, a battalion of the Royal Americans, under the command of Colonel Henry Bouquet. Provincial forces were present on both expeditions, but while Braddock's army was mainly composed of regulars, Americans accounted for about two-thirds of the force that marched under Forbes, the largest contingents coming from Pennsylvania and Virginia. In the end, however, it was not the size or the composition of the two armies that marked the greatest contrast, but the climax of their respective efforts: a disastrous defeat for the forces that Braddock led and a triumphant completion of its mission by Forbes's army.

Historians have discussed at length the operational history of these two expeditions. This article will focus instead on their medical side, which has never been studied in depth. Between them, the expeditions well illustrate the health problems that beset British and American military enterprises on the frontier. Their respective histories demonstrate that the quality of medical assistance and the wisdom of medical policy could and did make a difference in the health of the troops. By the time of the Forbes expedition, line officers were exhibiting significant sophistication in responding to health risks.
Sickness and Health in Two Expeditions

1. Braddock

Prior to its disastrous defeat at the Battle of the Monongahela, Braddock's army enjoyed generally good health. The crossing from Ireland early in 1755 was an easy one, by contemporary standards, and on March 17, after the last of the troops had arrived in Virginia, Braddock wrote the adjutant general, "There is not one sick Man among them, which is pretty extraordinary considering the length of the passage." Thereafter, illness did enter the ranks, for in mid-April, as the troops began their march toward Fort Cumberland, about fifty men were left behind at Alexandria, the plan being to transport them to the fort, treating their conditions en route. Apparently, however, these fifty included all the men who were unfit to march. Given this, the figure was rather low.

In early June, culminating on the 10th, Braddock's army marched from Wills Creek, Maryland, the site of Fort Cumberland. Again, some sick were left behind. In the few days before departure, the most significant epidemic of the expedition struck. On June 7, George Washington, one of Braddock's aides de camp, wrote his brother that several men had died at Wills Creek and "many others" were sick "with a kind of bloody Flux." "Bloody flux" was used interchangeably with dysentery, although it is possible that some troops were victimized by some other disease that caused violent, repeated purgation, such as acute severe gastroenteritis, then commonly called "cholera morbus," or even a severe case of diarrhea. At least in its early phase, it appears that the outbreak was small-scale. In a return of the troops at Wills Creek on June 8, Braddock accounted 1,330 men of the two regiments, and 2,041 overall, fit for duty as opposed to 85 regulars (126 overall) sick-present and 39 (66 overall) in hospital, not counting those who had been left behind at Alexandria. Braddock apparently was satisfied with the health picture, and indeed he wrote the adjutant-general that if more troops had been available he could not have subsisted them. He added, "With these I flatter myself to be able to drive the French from the Ohio." From a health standpoint, the march proceeded well, although on June 16 a British officer noted in his journal, "The weather being very hot, & water bad, it caused many fluxes & feavers among the Men." That same day, Braddock, concerned that the march was proceeding too slowly, decided to leave much of his baggage behind under the command of Colonel Thomas Dunbar and press on quickly with 800–900 regulars from the two regiments.
and 400–500 other rank-and-file troops, mostly provincials and Independents.

Braddock probably left his sick behind at this point, and it is possible that men who became ill during the next week or two, before the distance between the divisions became too great, were sent back. Meanwhile, the army that had marched on with Braddock does not appear to have suffered any health crises, though provisions appear to have run short late in the march and the troops may have become fatigued, since they were pressed to a more rapid pace, across rugged terrain.¹²

The positive health picture changed radically on July 9, as the army, then less than a day's march from Fort Duquesne, encountered, and was routed by, a significantly smaller enemy force. That action cost Britain dearly. The account that the government published placed British casualties among rank-and-file at 914, with only 459 not wounded. The figures were even worse for officers, as 63 of the 86 were killed or wounded. Other reports also put casualties in the range of 60–70 percent.¹³ In all the battles that the British fought in North America in the period 1755–1783, only the failed assault at Ticonderoga, on Lake Champlain, in July 1758 resulted in as many deaths. Proportional to the numbers engaged Braddock's loss was by far the bloodier defeat.

Although some wounded officers, including Braddock, received prompt treatment and were carried on the retreat in wagons or on litters, most of the wounded rank-and-file had to fend for themselves. Years later, Washington recalled the first hours of retreat: "The shocking Scenes which presented themselves in this Nights March are not to be described. The dead, the dying, the groans, lamentations, and cries along the Road of the wounded for help... were enough to pierce a heart of adamant."¹⁴

On July 22 most of Braddock's army arrived back at Wills Creek, and the wounded were placed in available facilities. For several days thereafter, wounded soldiers who had fallen behind trickled in. Some provisions had been left behind for these troops, along with directions for finding the army. Nevertheless, a number of stragglers died on the road. On July 26 a wounded man arrived at the fort, starving and scarcely able to speak, and reported that he had set out with eight wounded comrades, all of whom had since died.¹⁵

Several days after the battle, an officer stated that of 350 wounded men, three-quarters were expected to die.¹⁶ So high was the mortality, even among those who survived the march back to Wills Creek, that men were buried without the reading of Divine Service.¹⁷ It is probable, however, that most of the wounded who made it back to Fort Cumberland survived. A sense of their numbers is provided in a return prepared at Wills Creek on July 25, showing
705 regulars fit for duty, 127 sick, 250 wounded. The most desperately wounded had already succumbed. Nevertheless, an arduous trek to Frederick, and later to Philadelphia, awaited the army.

2. Forbes

Like Braddock's army, the troops under Forbes's command began the campaign in good health. Both armies benefited from practices that were common in the eighteenth century and, indeed, grew from the very nature of contemporary warfare. Sick armies routinely healed in winter quarters, which they might occupy for six months, sometimes even longer. During the winter, sick or frail men who were considered unlikely to recover their strength were discharged or invalided, while new men were recruited or were drafted from other regiments. When the army marched from winter quarters, sick troops were left behind. Armies that were refused this leisurely pace, such as Cornwallis's, invariably broke down. On the other hand, the forces commanded by Braddock and Forbes moved slowly into action. This pace did not entirely reflect the preferences of the two generals, both of whom were beset by a complex of problems as they prepared to move toward the fort. Nevertheless, the late start of the respective campaigns did provide health advantages.

The benefits are apparent in returns that were submitted by Montgomery and by Bouquet. Montgomery's Highlanders had arrived in Charleston on September 1, 1757, with illness rampant. The first two full returns prepared in America, dated September 24 and October 24, classed fully one-third of the troops unfit for duty. A return dated January 24, 1758, however, showed the regiment, still in Charleston, to be in far better condition: 942 men fit, 68 sick, 30 to complete. The health level suggested here did not change markedly during the balance of the spring, although a slight increase in illness occurred in early June, as the Highlanders moved to Philadelphia.

The case was similar for Bouquet's division of the 1/60th. That division was quite sickly during 1757, its problems exacerbated by the reluctance of the South Carolina assembly to provide adequate accommodations. Nevertheless, a return completed at Charleston, on January 24, 1758, suggests that the division was fairly healthy. It is also probable that when Bouquet and his men sailed from Charleston in March 1758, he left the more sickly troops behind.

For Forbes's army, as for Braddock's, the main health setback came in battle. On September 14, 1758, Major James Grant of the 77\textsuperscript{th}, commanding
what was intended as a reconnoitering expedition, foolishly chose to assault Fort Duquesne, but was severely defeated at "Grant's Hill," near the fort. Grant's detachment was for the most part composed of regulars, and this is reflected in the casualties. Of the 273 men reported killed or missing, 212 were from the 1/60th or the 77th; so were 14 of the 22 officers.24

Compounding the mortality of Grant's Hill, the men under Forbes's command suffered far more epidemic disease than did those who served under Braddock. Two reasons were paramount. First, although Forbes's army was typically divided among several locations during the campaign, it was in its various concentrations together for considerably longer than was Braddock's. Second, it persisted through the "sickly season" of July through October, typically the period of greatest danger to the health of any large group of people, whereas Braddock's army finished its business—albeit disastrously—in early July. The health picture was never worse than it was in late October, when Forbes informed Major-General James Abercromby, the commander-in-chief, that "The flux and Bilious fever has been, and is very severe upon us, as we have or will be obliged to leave five hundred men behind, either sick or Convalescent, this with the Garrisons for Escorts &c leaves me but a small Body either to make conquests, or maintain myself where I am."25

A return of the forces at Loyalhanna prepared on November 4 reflected the steep decline of the British component. Of the troops not on command, Bouquet's division of the 1/60th included 256 fit, 43 sick, and the 77th listed 582 fit, 149 sick, 113 of them in hospital. Perhaps most telling, Bouquet's division required 73 (18.3 percent) to complete, and the Highlanders were 217 (16.1 percent) below the establishment. As of the preceding January 24, Bouquet had been short 43 and Montgomery a mere 30. The disaster at Grant's Hill accounted for the bulk of the difference, but there had also been significant attrition through disease. Most of the Provincial units were likewise sickly and depleted.26

The most fully documented health story of the expedition, however, is that of Forbes himself. He was ill during much of his time in America, and in September 1758 he confided to William Pitt, the prime minister, that his health had been "extreamly precarious these two years."27 He also believed, however, that his condition was made worse by the rigors of the expedition.28 A health problem, quite possibly related to the one that would prove mortal, confined him to bed for much of the winter of 1757–58.29 He appears to have rallied briefly, for there is no mention of illness in the letters that he wrote, or that were written by those close to him, in March, April, and May, as he
worked from a base in Philadelphia to supervise the early stages of the expedition. On June 7, however, he reported to Abercromby, "I have lately been much out of order by a kind of Cholera Morbus." Twelve days later, James Napier, director of the hospital, responding to a letter from Forbes, expressed regret over news of the general's illness and suggested that as the enterprise became better organized, he would have less vexation. On September 4, Forbes wrote Abercromby from Shippensburg, "You may guess my condition when I tell you I have not Strength to ride on Horseback, nor indeed is my Body able to bear the roughness of a Waggon, and Backside (with Pardon) has been so pestered with Glisters [i.e. enemas] and Stools, that I must Sally forth in a kind of Horse litter." On November 30, Richard Huck, the hospital physician, reported to Loudoun, "Porr Genl. Forbes has had a great Share of ill Health. In one of his Letters to me, he says he may be said to live like the Chameleon, except two Opiate Injections every day which he had been obliged to have for 12 weeks may be said to nourish him." The following January 20, Huck wrote that the flux, which had so afflicted Forbes the previous summer, was "kept off at present chiefly by an anodyne Glyster every Morning, and an Opiate at Night." During the course of Forbes's illness, the horse litter, which he mentioned in his letter of September 4, became his standard mode of transportation, carrying him to the forks of the Ohio in the late autumn, then back across Pennsylvania, on his final journey.

Forbes's illness necessarily affected his role as commander. In the letter that he wrote to Abercromby on September 4, he reported that while he had earlier considered resigning because of his deteriorating health, his condition was now improving, and he added, "my sickness has never retarded my operations one single moment." He may well have believed this to be true, and indeed Bouquet, who was as magnanimous as he was able, gave him sole credit for the eventual success of the mission. Nevertheless, during much of the campaign, illness prevented Forbes from even being with his army. He remained at Philadelphia until about June 29, by which time virtually his entire army had moved west. The duration of this stay was determined primarily by the need to coordinate preparations. Illness may likewise have delayed his departure, however, and it played a central role during the next two months. After moving from Philadelphia to Carlisle, Forbes continued there, seriously ill and often bedridden, until proceeding to Shippensburg on August 12. Further illness held him back, and it was not until September 5 that he made the short journey to Fort Loudoun. At last, on September 15, he reached a major encampment, at Raystown (the present-day Bedford).
Ironically, just over a week before, Bouquet, who had been at Raystown, moved on to Loyalhanna. As Forbes's itinerary shows, during virtually the entire summer he was separated from the core of his army. While he played a central role in organizing and directing the expedition, he appears to have left day-to-day management to his subordinates, Bouquet being by far the most influential. When he was not on site, Forbes kept abreast of affairs through correspondence. Yet, on several occasions he could not rouse himself to respond, and not surprisingly his physical condition led to bouts of depression. On July 12, his secretary, Brigade Major Francis Halkett, wrote Bouquet from Carlisle, "General Forbes is so extreamly Reduc'd & low in Spirits with the Flux, and other afflictions, that he is not able to write you." Forbes's disease was also debilitating. On August 7, Halkett informed Bouquet that although the general's condition was improving, "from the length of his Indisposition, & eating nothing, he was greatly reduc'd & still very weak." Still, Forbes continued to set policy. On July 31, Halkett wrote Bouquet that the general was too indisposed from taking physic to acknowledge Bouquet's latest letter, but wished him to proceed with road-building.

During the summer and early fall, as the enterprise stalled and the men languished, some individuals, notably Washington, wrote critically of Forbes and questioned his resolve to complete the mission. Once the ruins of Fort Duquesne were in the possession of his army, however, there was virtually unanimous praise of Forbes for the courage that he displayed during a long and painful illness. Huck wrote, "He had great Merit in going forward at this Season of the Year in a State of bad Health, that would have confined any other Man to his Room."

The protracted incapacitation on an officer in command could well jeopardize the success of a campaign. Forbes's illness might have had disastrous consequences for the expedition, but his determination to retain control over broad policy, coupled with the able administration of Bouquet, overcame this handicap.

Medical Services: Organization and Personnel

1. Braddock
In the field, several different categories of medical personnel served the army. Two, however, were most important. Regimental medical officers, usually a surgeon and his mate for each foot regiment (two mates in larger regiments),
served in peace and war. But in wartime, the dominant medical institution in each theater was the general hospital. Hospital physicians and surgeons were the elite of army medical personnel. They tended to have the ear of the high command and they played a major role in shaping medical policy.\textsuperscript{43}

While it is unknown who was responsible for organizing the medical services, the highly competent surgeon-general David Middleton probably played a key role. Sir John Pringle, the most celebrated and influential figure in army medicine during the eighteenth century, may also have been involved. As of 1754, when Braddock's staff was appointed, army medical services above the level of the general hospital were rather loosely arranged.\textsuperscript{44}

The commissions of the medical officers were dated September 25, 1754, relatively early in the planning phase of the American campaign, suggesting this was of primary concern. Medical considerations ranked reasonably high in the minds of the men who planned the Braddock expedition. Further, the actual choices of personnel reflect care, rather than haphazardness. Heading the hospital as director was James Napier, who had served as a hospital surgeon on the Continent during the preceding war. John Adair, a surgeon, had previous service as surgeon on an expedition to Brittany in 1746. All of the remaining officers, aside from one apothecary and four mates, had likewise served in the field, and perhaps more significantly, had experience in America. This group included one of the surgeons, the capable but contentious John Cherrington, and two mates. Also among these veterans were an apothecary, Robert Bristowe, and his sister, Charlotte Browne, the matron—the only woman of her century to be included in the published Army Lists. All five had served on the garrison staff at Louisbourg, 1745–49.\textsuperscript{45}

The hospital as constituted seemed well prepared for its preliminary task, but the list of personnel was marked by one significant omission: It did not include a physician. The failure to appoint one to accompany Braddock's army may suggest that the planners were, perhaps on orders, trying to hold down costs by avoiding a physician's comparatively high salary.

On the other hand, the hospital was, on paper at least, to be amply supplied. A list of necessaries for the hospital prepared in late 1754 suggests this. Heading the list were eight hundred flock beds and bolsters, each bed six by three feet, along with one pair each blankets and sheets, eight marquees, eight troopers' tents, and several associated items.\textsuperscript{46} Since eight hundred beds for an army consisting primarily of two regiments was a rather generous allotment, the number may suggest that planners were anticipating an extended
struggle, with consequent buildup of forces. The inclusion of marquees and tents indicates that the hospital was expected to be mobile.

Braddock at first intended to establish a 150-bed hospital facility at Hampton Roads, but this plan fell through when the deputy quartermaster general, Sir John St. Clair, who preceded him to America, was unable to locate or build an appropriate structure.\(^4\) St. Clair was apparently elsewhere when Braddock arrived at Williamsburg, February 26, so the general relied on John Hunter, the local agent for a British money contractor. Braddock directed Hunter to prepare to receive patients from the ships and to settle them in appropriate facilities, where they were to be treated by regimental surgeons and mates.\(^4\) The fact that so few men were sick may explain why Braddock chose to rely on regimental staff, but his decision left hospital officers with little to do, and indeed there appears to have been early confusion as to the role that the hospital would play. On February 26, Braddock ordered the hospital staff to remain aboard ship. They were still on board one month later, and as Browne noted in her entry of March 26, “5 of the Doctors being at a Loss where to go, came on board with us staid 3 Weeks and then were order’d to Wills Creek.” Browne’s note suggests that quartering for staff remained a problem, but it may also imply a deeper confusion.\(^4\)

On June 1, after weeks of confusion in organizing the efforts of the hospital, Bristowe and Browne began the journey to Fort Cumberland, transporting the sick under their care in wagons fitted out for their hospital function. As Browne recounted, “at 6 we March’d for Will’s Creek with one Officer, my Brother, self and Servant, 2 Nurses, 2 Cooks, and 40 Men to guard us. 12 Waggons with the sick, Lame and Blind, my Waggon in the Rear. my Equipage 3 Horses and a Mare good in Spirit but poor in Flesh.” The next day, she noted in her journal, “The Roads are so bad that I am almost disjointed.” Undoubtedly the patients in the wagons likewise suffered from the poor roads. So did they on June 7, when it rained through the wagons. As Browne noted, “all the Sick Allmost drown’d.” The procession continued on its way nevertheless, taking in other sick soldiers who were brought back. On June 11 a sick man was left behind, with a nurse to tend him. Although several wagons broke down and the quality of the roads progressively worsened, the march continued, the train moving out before daybreak most mornings. It arrived at Fort Cumberland on June 13, after almost two weeks on the road.\(^5\)

Meanwhile, the bulk of the hospital moved ahead with the army. Accompanying hospital director James Napier on the march were surgeon
MEDICAL ASPECT

John Adair, an apothecary, and five mates. John Cherrington and two mates appear to have remained at Fort Cumberland. Uncertainty regarding the role that the hospital was to play, apparent in the early phase of the campaign, continued on the march. From the beginning, Napier essentially played the part of a regimental surgeon, visiting sick soldiers in camp, recommending hospitalization in the more serious cases. One of the hospital mates, Charles Swainton, was killed in the battle on the Monongahela, but otherwise none of the medical personnel, either hospital or regimental, was wounded.

In the wake of Braddock's Defeat, medical assistance was slow in coming. According to one report, it was not until July 13 (the day of Braddock's death), after the main force had reached Dunbar's camp, that the men for the first time received dressings, and by then some of their wounds contained maggots. The reason for this delay is unclear. There may well have been several causes. Undoubtedly the small number of medical men were overwhelmed by the sudden need to treat more than four hundred wounded men and officers. Also, some medical and surgical supplies were lost when Braddock's army abandoned the wagons.

As the reunited army began to retreat to Fort Cumberland, medical services became more orderly. Napier himself played an active role in treatment of the wounded. An order of July 15 specified, "The Several Surgeons Are to take the greatest Care to see the Number of Wounded Allotted to their Care by the Director of the Hospital Are Carefully dressed every day." Various detachments of wounded were sent back to the hospital facility at Fort Cumberland, accompanied by medical staff and guards. But those who arrived at the fort were by no means assured of good care. Bristowe had died on July 17, of flux and fever, and Browne had been desperately ill for a month. Furthermore, after word of the debacle of July 9 reached the fort, many of the nurses, most if not all of whom were soldiers' wives, raced ahead to join their husbands. Even Browne, the matron, had difficulty obtaining a nurse for herself, and at last could obtain "only a very bad one," a reflection of just how short staff was at the fort.

In the weeks after the battle, and possibly before, Napier himself was confused about the purpose of the hospital. On July 22, at Fort Cumberland, he wrote to Henry Fox, a secretary of state, asserting, in part,

As the Forces acting on this Continent are in several Divisions, at some hundreds of Miles distance from one another, an Hospital can be of Use but to few. . . . [T]herefor submit it to your Consideration
whether the Service would not be full as well answer'd, if not better, and a great Expence sav'd, by having no Establishment for an Hospital, and allowing two or three additional Mates to each Regiment; which would be sufficient to take care of the Corps either together or in Detachments. 57

Fox ignored the suggestion to quash the hospital in America. He also ignored an alternative recommendation by Napier: that if the hospital were to be continued, the staff should be increased and Napier's own authority enhanced. This latter advice, however, marked out the route that the government did eventually take. In early 1757, Lord Loudoun, the commander-in-chief, elevated Napier's authority by designating him chief surgeon. Somewhat later, perhaps that spring, Loudoun promoted his long-time protégé, Richard Huck, from the position of hospital surgeon to that of physician. Completing the reorganization, the government laid out a model for governing the hospital that made the physician and the chief surgeon supreme. The formula might have encouraged feuds and factionalism, and indeed it did so during the War of Independence. 58 But for the balance of the French and Indian War, the hospital was remarkably well administered, reflecting the primacy of Napier, who was ably assisted by Huck.

2. Forbes
By the start of the campaign in 1758, the hospital establishment had stabilized. Besides Napier and Huck, it included four surgeons, three apothecaries, eight surgeons' mates, and eight apothecaries' mates, as well as Browne. 59 Although only Napier, Browne, Adair, and Robert Bass (an apothecary's mate) were veterans of the Braddock expedition, all of the staff, aside from a few mates, had been in place for at least two campaigns. The main hospital facility was in Albany, but Napier regularly dispatched staff to work at smaller facilities or to serve on expeditions.

While the staff had grown since 1755, it was actually smaller than Braddock's hospital in proportion to the size of the army it was intended to serve. There were now about fifteen thousand regulars in America. The hospital needed to cater not only to their needs, but to Provincial troops, who in most expeditions except in Canada constituted a large component of the force, often a majority.

In early spring 1758, Forbes was concerned that his hospital was taking shape too slowly. On April 22, he wrote Abercromby that Montgomery's
regiment included fifty sick troops, besides some who had been left behind, and he asked the general, "be so good as to order Mr Napier to send us people." Apparently the request had an effect, for on April 24 Napier wrote from New York to assure Forbes, "your Hospital will be ready before any other part of your Army." Napier noted that in accordance with Abercromby's orders the hospital for the expedition would at first be based in Philadelphia, with William Russell as head. Russell had joined the hospital as a surgeon in March 1756, and Napier assured Forbes that he was "a very good Man & a diligent Officer." On April 30, Napier wrote again, offering Forbes specific recommendations on running the hospital: that he should rely on regimental staff until he reached Fort Cumberland and only there establish a hospital facility; from the fort, he should take Russell and two or three of the best hospital officers. He assured Forbes that the proposed hospital staff was adequate and that Russell had sufficient funds and hospital stores.

Forbes's hospital reflected the fact that his expedition held the lowest priority of the three main enterprises planned for the 1758 campaign. While the core hospital staff of the British forces remained in Albany or New York, ready to support Abercromby in his push toward Ticonderoga (and, he hoped, beyond), and a second major component joined Major-General Jeffery Amherst in his expedition to take Louisbourg, Forbes was assigned a less distinguished group. Besides Russell, three more hospital officers were assigned, but they were all mates: Bass; John Munro, surgeon's mate; and William Baines, apothecary's mate. Bass was promoted to apothecary in August. This was probably not, however, to reward him for his service or to upgrade the hospital. Rather, an apothecary died, and as eldest mate he succeeded him.

Possibly Napier was concerned that Forbes would not approve of the staff that had been assigned to him, and particularly that he would have reservations regarding Russell. Like many officers, Forbes was especially fond of Richard Huck, on one occasion commenting to Loudoun, "Dr Huck animates you at once." But Napier had already assigned Huck to serve Abercromby's army. Nevertheless, Napier was sensitive to Forbes's attitude. In his letter of April 30 he assured the general that he would be pleased with Russell when he came to know him.

It does appear that Russell eventually gained favor with Forbes. The general credited him with designing the litter that enabled him to travel, however painfully. Russell later served as one of the witnesses as Forbes sealed his will. Nevertheless, he did not play the chief role in treating the general.
That responsibility was given to a line officer, Lieutenant James Grant of the 77th. Grant may have served as a surgeon’s mate when he first entered the army. In any case, he had some medical credentials that Forbes was aware of, and Halkett informed Bouquet that “the General has a confidence in [him] as a Surgeon.” He added, however, that Forbes was calling on Grant “at the desire of Doctor Russell.” Perhaps Russell felt that neither he nor the small hospital detachment that he headed could devote the time necessary to serve the general adequately. It was in any case not unusual for a high-ranking officer who was suffering prolonged illness to have a personal physician. And Forbes appears to have been satisfied with Grant’s performance. He showed him several marks of favor, and Grant, like Russell, witnessed his will. Yet, it is unlikely that either he or Russell ever enjoyed his confidence as did Huck. On January 6, 1759, as Forbes moved painfully through Shippensburg, he informed Amherst (who had succeeded Abercromby as commander-in-chief) that his “Embacill state of Health” had caused him to request that Huck meet him in Philadelphia. But he sensed that he might be beyond help, even by the ablest of physicians, and on January 13 he wrote Amherst from Lancaster, “by the time I reach Philadelphia I don’t know whether [Huck] will be of any service to me or not As I am weaker than a child and recover no Strength.”

Huck did in fact attend him in Philadelphia, but was pessimistic when he reported to Amherst. As late as February 7, Forbes petitioned Amherst to be allowed to return to England, citing doctors’ advice that this was essential if he was to regain his health, but in the last weeks of his illness, he seems to have realized that his cause was hopeless. Relying at least in part on Huck’s report, Amherst wrote Pitt on February 28 that “The last Accounts of Br General Forbes give but very little hopes of his recovery, he was confined to his bed, had lost all appetite, and gave it over himself.”

Perhaps the greatest health crisis for Forbes’s medical services came at Grant’s Hill. Only two medical officers are known to have been present at the battle, these being the surgeon’s mates of the 77th, both of whom were wounded but escaped. It is quite possible that surgeons attended some Provincial units. The number of medical officers was, however, probably small. Grant was, after all, supposed to be reconnoitering. No battle was anticipated, and the medical staff of both the hospital and the regiments was stretched thin. Nevertheless, despite the sharp reverse suffered by Grant’s force, it does not appear that, as at Braddock’s Defeat, the medical services were overwhelmed. However, evidence for this must in part be based on an
argument from silence. That medical services in the wake of Braddock's Defeat were at first inadequate is fairly well documented, but no surviving sources speak directly to the treatment of wounded soldiers after Grant's Hill. Some relevant documents may have been lost, but judging from extant sources the numbers of wounded officers and men from Grant's Hill did not overtax the medical services. A major reason may be that there were not many wounded to treat. The same return that lists 273 killed or missing notes only 44 wounded. Grant's Hill was in fact unique among major battles that the British Army fought in America 1755–1783. In most cases, the number wounded far exceeded the number killed, though many subsequently died of their wounds. At Braddock's Defeat, the killed and the wounded were roughly equal. Only at Grant's Hill was there such a large disparity of killed over wounded.

It was common practice in the British Army to place the regimental medical officers under the direction of hospital physicians or surgeons, if such personnel were present. This policy was observed in Forbes's army, as is reflected in an order issued at Loyalhanna on November 3, 1758: "The Surgeons of the different Corps are to wait upon Doctor Russell as soon as possible with a return of their Sick distinguishing their diseases and to explain their Situation." Nevertheless, it appears that the regimental staff was quite competent. It included Lauchlin Macleane, who served Bouquet's division and who in February 1759 became surgeon to the 2nd Virginia regiment. Macleane had the distinction of being an MD from the University of Edinburgh, and may indeed have been the only medical man in Forbes's army with a degree. He had a penchant for trouble, however, and during 1757–58 he faced legal problems both for debt and for having kissed a married woman who was his patient. But Bouquet rated highly Macleane's value as a doctor, and Forbes appears to have shared his confidence, for on August 2 he wrote him, "If ane hospitall is wanted [for dysentery patients] Doctor McLean ought to open one." Bouquet may have had less confidence in the medical men who served the American units, for on September 4 he ordered, "The Provincial Troops are to send their Sick to the Hospital as soon as they are taken sick." Nevertheless, Provincial staff included John Morgan, surgeon to the 2nd Pennsylvania regiment (whose career was just starting, however, and whose university education was still in the future) and James Craik, the native Scot who after coming to Virginia came to enjoy Washington's respect as a medical man and attended him and his troops for more than forty years.
Line Officers and Medical Issues

During the eighteenth century, it was not unusual for officers in the British Army to have a medical background. Ensigns sometimes doubled as regimental surgeons' mates, and occasionally men who entered the service as regimental medical officers purchased line commissions and proceeded in that direction. Regardless of their background, however, officers in command were expected to have some acquaintance with the medical issues that were likely to affect their troops, and they were supposed to be capable of making informed judgments on matters related to health. Sir John Pringle and other writers on military medicine directed their works in large part to line officers, and those in command often solicited advice from medical personnel in their armies, particularly the senior staff of the hospital.

Braddock appears not to have had any training in medicine, and his orders and correspondence during the expedition to Fort Duquesne seldom deal with health and medical issues. The records are rather sparse, however, and it can be said that at least in conventional ways he worked to promote the health of his men. He streamlined the process by which soldiers were admitted to the hospital and by which their bills were paid. On at least two occasions, he had the soldiers' wives checked for venereal disease. And when Washington, one of his favorites, contracted a fever in mid-June, Braddock committed him to the particular care of the medical staff and ordered that he be given Dr. James's Fever Powders, a popular febrifuge.

Of the men who commanded major enterprises in America, none had as extensive a background in medicine as had Forbes. Although his father had been a career officer, Forbes was trained in medicine. On September 25, 1729, shortly after he turned twenty-two, he was commissioned surgeon to the Scots Greys (North British Dragoons), and he retained the surgeoncy until July 5, 1735, when he became a cornet in the same regiment and began to advance in the line.

Even during 1758, more than two decades after resigning as surgeon, Forbes wrote like a man who was confident of his medical abilities. On learning from Washington that William Byrd, who shared command of the Virginians, was ill, he responded, "I am sorry to hear my poor friend Colo. Byrd has been very bad. I wish he were able to come here where I should hope to prove a better physician than he will probably meet with at Fort Cumberland." Forbes used medical analogies in his correspondence. On
October 8, he wrote to Abercromby from Raystown that he was very weak, but added that he had come to believe "that trouble and vexation is extreamly wholesome, as it operates now and then or ten times a day upon me, like the strongest Cordiall." He speculated on the causes of epidemics. In August he wrote of Montgomery, "Archie has gott the Flux it is a general Distemper here, owing to the Lime Water." Forbes was also satisfied to diagnose his own illness. When on June 7 he informed Abercromby, "I have lately been much out of order by a kind of Cholera Morbus," his reference was to a disease that was characterized by unrelieved purgation. Perhaps this was an occasional symptom, or possibly at this state Forbes was accepting the diagnosis provided by medical staff. In either case, he later ventured to provide his own diagnosis. He wrote to Bouquet on August 2, "I have been tormented day and night these 14 Days with what they call a Flux, and what I call A Violent Constipation." The following day, he informed Abercromby, "I have been very much out of order by what Dr. Bassett [Robert Bassi will call the flux, which is a most violent constipation attended with Inflammation in the Rectum, violent pain & total suppression of the Urine." Forbes was still constipated in late August, when he requested prunes and raisins. On September 6, however, he reported to Pitt that his malady was a bloody flux, which would suggest dysentery.

In contrast to the Braddock expedition, there is much source material on medical and health-related policies associated with Forbes's enterprise, and this reflects in part the interest of the commander. After arriving in North America in mid-1757, Forbes began to acquaint himself with health issues germane to frontier warfare. Among these, one of the most crucial was scurvy. Forbes promoted a policy instituted by Loudoun, that of sending scorbutic soldiers to the Jerseys to heal with the help of fresh vegetables. Loudoun also spearheaded a project to plant cabbage and other vegetables at sites that the army occupied or was likely to occupy, for extended periods. This enterprise was the subject of some ridicule, but it was undoubtedley of benefit to the troops, especially in regions where fresh vegetables were scarce and scurvy prevailed. Forbes likewise sought to ensure that adequate supplies of vegetables were available. His concerns regarding scurvy were sufficient to influence the timetable for his expedition. On May 4, 1758, he informed Abercromby that he was holding back Bouquet's companies, which Abercromby had wanted to see marching west, because of reports that there was no "Garden Stuff as yet in those back parts."
In Bouquet, Forbes found a partner whose many military virtues included an interest in medical issues and a determination to pursue policies that were intended to keep the troops as healthy as possible. Bouquet placed a premium on medical services. When the South Carolina Assembly refused to fund the establishment of an infirmary for the 1/60th, he took it on himself to order that the facility be fitted out. At an early stage in the Forbes campaign, Bouquet moved to establish facilities for the hospital, judging Raystown to be the ideal site. Reflecting his sophistication, he also planned gardens so that the sick might be supplied with fresh greens. He took the initiative in this matter, informing Forbes of his plan on May 22; three days later he received the general's approval: "Your Making a provision for a Generall Hospital at Rae's Town is very right, it will in the meantime always answer for some use or other — And as you have made no demand for Garden Seeds being sent from this place, I take it for granted that you can provide yourself in the Frontiers."

As the summer passed, Bouquet assumed a progressively greater responsibility for directing medical matters, sometimes apprising Forbes only after the fact. On September 4 he reported to the general that he had notified Washington, "His invalids will stay at Cumberland, where they will be sent a surgeon, drugs, and some equipment, since we have no way of lodging them here." In preparation for the march to Fort Duquesne, Bouquet ordered regimental surgeons to send their sick to the hospital facility at Raystown.

On Forbes's expedition, as on Braddock's, those in command were concerned by the prevalence of venereal disease and sought to contain it by isolating infected women. An order of October 4 stated, "Any woman suspected to be infected with the Venial Distemper are to be sent to the Hospittal to be examind & those who are found disordered are either to be kept in the Hospittal till Cur’d or Turnd out of Camp."

Forbes had a particular fear that dysentery, the proverbial camp disease, would decimate his army. On August 2 he wrote Bouquet, "that distemper is particularly infectious, so pray make Houses of office be filled up every other day and all kept sweet & Clean." The correspondence and orders emanating from the Forbes expedition are replete with references to hygiene. The troops were directed to construct necessary houses at each encampment, but never within the camp, and the troops that eased themselves outside these facilities were to be severely punished. The latrines were used for only a limited period, then filled in and new ones dug. Both Provincial and regular troops were enjoined to keep their camps clean.
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It did not take an officer with medical training, like Forbes, or one with extensive experience in command, like Bouquet, to apply common theories on hygiene. Washington, too, was aware of the conventions for maintaining an army in health. Writing to Bouquet on August 18, he reported that many of the men of the second Virginians who were with him at Fort Cumberland were sick and dejected. He then proceeded to deduce a cause. The reason, he concluded, was the difficult living conditions, the limewater, and bad air. Contemporary medical writers often blamed illness on the campsite, but Washington, perhaps anticipating a question, rejected this, claiming that the camp was “undoubtedly the most healthy & best Air’d in this Vicinity.” As evidence supporting his conclusion, he asserted that if the campsite were the issue, the men of the first battalion would be as sickly as those of the second.100

The Significance of Medical Intervention

Eighteenth-century medical and surgical practice has sometimes been deplored, but while it was clearly limited in relation to its modern equivalent the benefits that it provided were considerable. Contemporaries certainly believed this to be so. When medical relief was unavailable, they complained. In a June 1758 return of two Provincial companies in Forbes’s army, the preparer wrote of doctors and drugs, “Not Come – but Much Wanted.”101 As the Virginians were returning home at the close of the campaign, many passed through Winchester, where, Craik reported to Washington on December 20, “Great numbers are daily flocking to the Hospital; and what is still more dreadfull not one medecine to give them for their relief.”102

Not only medical men but officers in command could do much to safeguard the health of the troops. On August 2, 1758, Adam Stephen wrote Washington from Raystown, “It gives me great Concern to acquaint you that Liut. [John] Lawson & two men of your Regiment are down in the Small pox – It first discoverd it self yesterday.” Stephen, who would later play a significant role in the Revolution, was at this time colonel to a Virginian regiment. But he had extensive medical training, having studied medicine for several years at Edinburgh during the early 1740’s, followed by active service as a naval surgeon. After settling in Virginia in 1748, he had practiced medicine and surgery for several years, winning some commendations for his skill.103 By 1758 he was also an experienced officer, having served in various
enterprises, notably the Braddock expedition. His background in both command and medicine served the troops well during the crisis of August 1758. In his letter of August 2, he not only reported to Washington on the outbreak of smallpox, but on what he did to prevent the disease from spreading.

I immediately Set about Building an Hospital at a distance from Camp to receive the Infected – and reconnoitred ground for a New Camp for the Virginians, which is to be movd to day 2 miles S.E. of this Place. – All the men taken with the disease shall be movd to the Hospital immediatly where they will have a particular guard of men who have had the Small Pox; a Docr & Nurses to Stay with them, without any Correspondence with us. I am in hopes that in a fortnight, following this method the disease will disappear – I would advise you to have Capt. [William] Flemings Company in camp by them selves, least they Should have Carryd the Infection to Fort Cumberland.

In this case, smallpox does not appear to have spread. Stephen's vigilance and his sense of what steps to take may be credited with having forestalled an epidemic.104

On March 18, 1759, one week after the death of Forbes, Colonel Hugh Mercer, the Pennsylvanian who commanded Fort Pitt, reported to Bouquet that scurvy had begun to appear at the fort. He added, "Vinegar or Hard Cyder would be extreemly usefull for Such of the Men as have the Scurvy. I could wish encouragement was given to Sutlers to bring these Articles." He furthermore bemoaned the fact that "Garden seeds we have none."105 American and British officers alike were becoming more sophisticated in their appreciation of health risks on the frontier and how to counter them, and the hard lessons provided in the early years of the French and Indian War had much to do with this. By implementing what they had learned, they would save the lives of many soldiers in the years to come.

NOTES

1. Much of the research and preparation of this article was completed at the David Library of the American Revolution, which generously hosted me as a fellow during the fall of 2002. I also wish to thank Oregon State University and the Department of History at OSU for making it possible for me to take a sabbatical during 2002-03, so that I could pursue this and other projects.
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2. The Soldier's Friend; or, the Means of Preserving the Health of Military Men; addressed to the Officers of the British Army (London: Longman [etc.], 1798), 7.

3. The line officers' role in promoting health is further discussed in my essay, "The British Army in North America and the West Indies, 1755-1783: A Medical Perspective"; to be included in War, Medicine and Britain, 1600-1800, ed. Geoffrey Hudson; volume forthcoming from Rodopi Press, in the Clio Medica/Wellcome Historical Institute Series in the History of Medicine.

4. Also included in Braddock's army were three independent companies, two from New York and one from South Carolina; these totaled about 300 men and were regulars, though scarcely elite troops. There were in addition small contingents of seamen and artillery. Although some men and officers from the independents were present at Braddock's Defeat, they were probably a minority.


10. Pargellis, Military Affairs, 92; the returns are printed in ibid., 86-91. In the overall totals, I have included rank-and-file from the independent companies and Provincial units, but not the detachment of seamen or the Artillery.


12. Controversy exists concerning the numbers and composition of the force that was defeated on July 9. Note Paul E. Kopperman, Braddock at the Monongahela (Pittsburgh: University of Pittsburgh Press, 1977), 285n4. Regarding the shortage of provisions, see ibid., 71-72 and 290n13.

13. Ibid., 293n37.


18. Pargellis, Military Affairs, 125–27. This return does not include a listing for the independent companies.
20. Papers of John Forbes, no. 36, Tracy W. McGregor Library, University of Virginia.
21. The last monthly return from Charleston, dated May 24, listed 962 fit, 39 sick, 2 dead (since the preceding return); the first return dated from the camp near Philadelphia, June 13, noted 76 sick in camp, 6 in hospital, while the June 24 return listed 934 fit, 64 sick (all in camp), and 4 dead. Forbes Papers, nos. 252, 312, 330, Univ. of Va.
22. The health problems that the battalion suffered in 1757 are discussed more fully in my essay, "The British Army in North America and the West Indies, 1755–1783: A Medical Perspective."
23. The return noted 362 fit, 36 sick-present, 9 sick-hospital, 13 on command/recruiting/furlough, 29 taken prisoner coming from Europe, 8 detached to Highlanders, 43 to complete, 16 recruited. Forbes Papers, no. 39, Univ. of Va.
27. Forbes to Pitt, Fort Loudoun, Sept. 6, 1758, in James, Writings of Forbes, 206.
29. Discussed in five letters, all Forbes to Loudoun, New York, Dec. 10 and Dec. 21, 1757, and Feb. 3, Feb. 4, and Feb. 27, 1758, in James, Writings of Forbes, 21, 27, 37, 38, 47–49.
30. Ibid., 39; Scottish Record Office [hereafter, SRO], Edinburgh, Dalhousie Muniments, Forbes Papers, GD 45/2/50/3.
31. James, Writings of Forbes, 166.
32. Loudoun Papers, HL, LO 5969. The injections would have been into Forbes's rectum, from a syringe or enema. It was almost 100 years later that the hypodermic needle was introduced.
33. Loudoun Papers, HL, LO 6028.
34. James, Writings of Forbes, 199.
36. Note the itinerary provided by James, Writings of Forbes, xi. Also useful in establishing dating are: Forbes to Bouquet, Philadelphia, June 27, 1758 (ibid., 124); Halkett to Sharpe, Shippensburg, Aug. 13 (ibid., 176); Forbes to Pitt, Fort Loudoun, Sept. 6 (ibid., 202); and Forbes to Bouquet, Raystown, Sept. 17 (ibid., 212).
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37. Ibid., 154.
38. Ibid., 169.
39. Ibid., 161.
42. For example, while Lieut.-Col. Banastre Tarleton was incapacitated by fever during the summer of 1780, his regiment, the British Legion, was led by subordinates and performed poorly in several battles.
43. The organization of medical services is discussed more fully in my essay, “The British Army in North America and the West Indies.”
44. In 1756, Cumberland restructured the medical department, creating the office of inspector of regimental infirmaries and bestowing it on Robert Adair. His motive for doing this is unclear, but Adair was a fine choice for the new position, and he helped to coordinate medical services at home and abroad. Note Paul E. Kopperman, “Medical Services in the British Army, 1742–1783,” Journal of the History of Medicine and Allied Sciences 34 (1979): 449–52.
45. Sketches of these individuals and all of those who served the British Army as medical officers in the western hemisphere, 1755–83, will be appended to my future publication, Lancet and Lance: Medicine, Health, and Sickness in the Eighteenth-Century British Army, with Particular Reference to Service in North America and the West Indies, 1755–1783.
46. Loudoun Papers, HL, LO 526. It is not known whether this order was completely filled.
47. Enclosed in St. Clair to Col. Robert Napier, in Pargellis, Military Affairs, 59. In a second enclosure (to Braddock, c. Feb. 10), St. Clair wrote that on Feb. 14 he would go to Hampton to “see the Hospitals and every thing in order for the Sick”: ibid., 65.
50. Ibid., 177, 178, 180, 182.
52. Cherrington and Robert Bass, a mate, were at the fort as of June 13: Browne, “Journal,” 182–83. It is possible that either or both subsequently moved ahead to join the march, but this is unlikely. As of July 13, before the army returned, George Tuting, a mate, was treating Bristowe: ibid., 184. Napier, Adair, and four mates, Charles Swainton, Joseph Williams, James Campbell, and Matthew Leslie (listed as “Jonathan Lee”) are included in a list of officers who were present at the battle: “The Journal of a British Officer,” in Hamilton, Braddock’s Defeat, 56–57. William Couch, an apothecary, cannot definitely be placed, but it is probable that he participated in the march, then was left behind with Dunbar’s contingent when Braddock divided his army. Attaching a hospital officer to Dunbar’s force would have been a natural step, and Couch is the only officer whose assignment is unknown.

54. In Jan. 1756, Lord Barrington, the secretary at war, ordered the apothecary general, George Garnier, to send two medical chests and surgical instruments to the 44th: PRO, WO 4/51/139. Barrington noted that the regimental surgeon, Robert Mackinley, had lost his medicines and instruments; this was presumably at the battle, which Mackinley did witness.


57. Loudoun Papers, HL, LO 611.

58. Napier's new commission was dated Feb. 24, 1757, and Huck's Aug. 5. On Dec. 31, 1756, James Pringle, who had served as comptroller of the hospital in the Low Countries 1742–45, wrote Loudoun from London to remind him of a promise that Loudoun had made to him and Middleton, to appoint Napier chief surgeon; noting that Middleton had held dual commissions in Flanders, he added, "Yet his was, but a trifle, to the fatigue, & trouble that Napier has had, from his first Landing until your Lordships arrival": Loudoun Papers, HL, LO 2431. It is quite possible that Loudoun decided to promote Huck early in the year, and his decision was simply not ratified by the War Office until the summer. The system of governance is prescribed in Loudoun Papers, HL, LO 2503; the same plan was used during the War of Independence. On the discord that eventuated during the latter war, see Kopperman, "Medical Services," p. 433.

59. Abercromby Papers, HL, AB 382.

60. *Writings of Forbes*, 69.

61. SRO, GD 45/2/50/1. Although sometimes referred to as "Doctor" in documents emanating from the Forbes expedition, Russell was not an MD, Dr. being a loose, often honorary, usage.


65. Napier's disposition of hospital staff for the 1758 campaign is provided in a draft dated New York, Dec. 10, 1757, Loudoun Papers, HL, LO 6851. As matters turned out, Huck lay seriously ill at Albany during much of the summer of 1758, so his service that year was quite limited: Huck to Loudoun, Albany, Sept. 10, 1758, Loudoun Papers, HL, LO 5914.


67. Ibid., 300.


69. Ibid., 275. On receiving the letter, Amherst became concerned that Forbes would not live to reach Philadelphia, and he ordered Col. Robert Monckton to be prepared to assume his command: Amherst to Gov. William Henry Lyttleton, New York, Jan. 12, 1759, PRO, CO 5/54/56.

70. James, *Writings of Forbes*, 279.

71. PRO, CO 5/54/101. Forbes's letter of Feb. 7 is in James, *Writings of Forbes*, 288–91. On Feb. 12, Amherst granted permission, and, probably more encouraging than truthful, added, "Doctor Huck tells me you are much recovered which I rejoice at": Donald H. Kent, Louis M. Waddell, and Autumn L. Leonard, eds., *The Papers of Henry Bouquet* (Harrisburg: Pennsylvania Historical and
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72. These were identified only as "Surgeon Dinner" and "Surgeon Harris" in the list of casualties: Stevens et al., Bouquet Papers, 2:508. Harris is otherwise unknown, but the first-named was John Dunnett, who was designated an ensign in the 77th on Sept. 16, 1758; he appears to have retained his position as mate until he transferred, as an ensign, to the 17th in Dec. 1760.


74. James, Writings of Forbes, 166.

75. Bouquet orderly book, in Stevens et al., Bouquet Papers, 2:686. On Maclean's service in Forbes's army, and the legal problems that complicated it, see James N. M. Maclean, Reward is Secondary: The Life of a Political Adventurer and an Inquiry into the Mystery of 'Junius' (London, 1965), 49–62. Maclean served Bouquet's division only, for he was not surgeon to the 1/60th, nor did he have a commission. Alexander Stewart was surgeon to the 77th during the Forbes expedition. The only regimental medical officers known to have been present at Braddock's Defeat were both from the 44th: the surgeon, Robert Mackinley (cf. n. 54), and his mate, William Congleton; neither was wounded. The surgeon of the 48th, Robert Murdock, had remained behind with Dunbar. The identity of the mate of the 48th at that time is not known, though he may well have been John Sayre; in any case, it is uncertain whether he was present at the battle.

76. It is unfortunate that Craik should be remembered primarily as one of the practitioners who attended Washington during his last illness. Craik was better educated than were most American doctors of the period, having studied at Edinburgh, and he appears to have enjoyed a good reputation as a medical man. He merits fuller treatment than he has received from historians, but a good brief sketch is provided by Mary G. Gillett in John A. Garraty and Mark C. Carnes, eds., American National Biography (New York: Oxford University Press, 1999), 5:658–59. On Morgan's service as a Provincial army surgeon, see Whitfield J. Bell, Jr., John Morgan: Continental Doctor (Philadelphia: University of Pennsylvania Press, 1965), chap. 2. Other commissioned medical staff who served Pennsylvania during the Forbes expedition included: John Blair, surgeon to the 1st (Armstrong's) regiment; Robert Bines, surgeon to the 3rd (Mercer's); William McMachan, surgeon to three companies under Major Richard Wells; and John Bond, surgeon at Fort Augusta: Forbes Papers, no. 516, Univ. of Va.


79. Washington himself came to have great faith in the powders, which he called "the most excel't mede. in the W'd": Washington to John Augustine Washington, Great Crossing, June 28, 1755, Fitzpatrick, Washington Writings, 1:141–42.

80. On Forbes's parentage, see Dictionary of Canadian Biography (Toronto: University of Toronto Press, 1965), 3:218. The nature of his medical education is unknown; however, his obituary in the Pennsylvania Gazette, Mar. 15, 1759, reports, "In his younger days he was bred to the profession of physic, but early ambitious of the military character, he purchased into the regiment of Scots Grey Dragoons" (note: Surgeoncies were often purchased, as were line commissions): reprinted in James, Writings of Forbes, 301.
81. Forbes Papers, nos. 1 and 2, Univ. of Va.
82. Forbes to Washington, Raystown, Sept. 16, 1758, in James, Writings of Forbes, 211.
83. Ibid., 227.
84. Forbes to Bouquet, [Carlisle,] Aug. 2, 1758: ibid., 166.
85. Ibid., 39.
86. Ibid., 166.
87. Ibid., 169.
89. Ibid., 206.
91. Pargellis, Lord Loudoun in North America, 239n33; James, Writings of Forbes, 86.
94. James, Writings of Forbes, 97. Although plans may have been made early on, the construction of hospital facilities did not begin until considerably later. On Aug. 23, Bouquet wrote Burd from Raystown, "an Hospital is to be built near the Fort": Stevens et al., Bouquet Papers, 2:407.
95. Stevens et al., Bouquet Papers, 2:473.
96. Abbott, Washington Papers, 6:117 (order at Raystown, Nov. 8).
97. Ibid., 6:36. 
98. James, Writings of Forbes, 166.
103. Harry M. Ward discusses Stephen's medical education and career in Adam Stephen and the Cause of American Liberty (Charlottesville: University Press of Virginia, 1989), 2–4. Ward conjectures that Stephen received a medical degree from Edinburgh, and he is not the only historian to have done so. The records of MDs conferred by Edinburgh at this time are reasonably complete, and there is no listing of Stephen as a recipient. Possibly he picked up an MD at Aberdeen, where he also studied. Medical degrees were easily obtained there and required no thesis. Indeed, Stephen's credentials, especially after his naval service, would have been better than those of many men who received MDs at Aberdeen. And it does not appear that the records of MDs conferred at Aberdeen in the 1740s are as complete as they are at Edinburgh. Nevertheless, it is by no means certain that Stephen had an MD at all.
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105. Kent et al., *Bouquet Papers*, 3:210–11. Mercer also reported a measles outbreak and expressed regret that his men had no hooks or lines to catch catfish.