Herbal Remedies: God's Medicine?

1.

N. LEE SMITH

A RECENT LISTENER-RESPONSE RADIO PROGRAM in Salt Lake City discussed the death of a young father from bleeding ulcers. Believing it wrong to seek medical help, he had sought a cure from an herbal practitioner. His widow called in on the radio program and strongly supported her husband's decision (despite the extreme rarity of such a death with orthodox care) because it was "part of our faith and religion to use natural means." It became evident as she went on that she and her husband were devout Latter-day Saints, and that they had somewhere picked up the notion that "natural cures" are a part of the restored gospel and equivalent to God's means for healing his children.

This theme, that natural, herbal medicines are God's medicines and that synthetically derived medicines are an uninspired intrusion by man is widely promulgated among some Latter-day Saints, especially those of pioneer heritage. Latter-day herbalists, leaning heavily on readily available quotes from early Church leaders to "stay away from uninspired physicians" and to trust in the Lord, rather than the arm of man, are earnestly trying for a credible rejuvenation.¹

A recent letter to the editor of the Deseret News (19 April 1979) stated,

As a member of the LDS church . . . I must express my feelings about your recent article on medical quackery (April 9). The article would have us believe the drug and surgery doctors are the "good guys" and all other health practitioners are the "bad guys." I resent that because it leaves my church and my God on the wrong side of the fence. In particular, I resent the inclusion among the "quacks" of the doctors who treat with herbs.

N. LEE SMITH is a physician in private practice in Salt Lake City, Utah. He is on the clinical faculty at the University of Utah School of Medicine.

Significant numbers of Mormons wanting to live by faith quietly shun orthodox medicine and seek "natural cures" as a tenet of their faith. An occasional general authority lends further credence to the herbalist argument.

In a recent study on cancer for the state of Utah, Kay Gillespie found that of those using quack methods (unproven herbs, prisms, pendulums, etc.), the bulk were LDS (as was also the case in some parts of neighboring states) whose motives were based, often strongly, on religious tenets. Seminars conducted for these practitioners "began with a Mormon rationale based on the Word of Wisdom and quoted church leaders as a beginning foundation for the importance of the work to be done in the seminar."²

One of their number, jailed for violation of state health laws restricting use of methods he regarded as a "God-given gift," wrote:

The law of God is over the law that man makes to forbid him to obey these commandments. I cannot disobey my God . . . this man-made evil law of practicing medicine defies the law of God . . . this law violates my religious convictions, my constitutional right to religious belief, and also violates the same who wishes my counsel and help.³

Recent lobbies to remove Utah and national health laws restricting unproven methods (as well as the majority of callers on the radio show mentioned above) feel such regulations violate free agency since they "restrict an individual's freedom to choose between God's methods and man's methods" of health care.

Gillespie's study concluded:

The findings of this research indicates a strong religious background among those studied—both quacks and patients. This religious background was found to be predominantly Mormon and tends to be influenced by [early] Mormon teachings and beliefs.4

Any physician seeing many Mormon patients can reaffirm that conclusion. It is remarkable, when questioned in depth, how many faithful Mormons are using various herbs either in addition to, or instead of regularly prescribed regimens.

ORIGINS IN THE TEACHINGS OF JOSEPH SMITH

Joseph Smith's affinity for herbal remedies, and antipathy for the standard medical heroics of his day are both easily documented and readily understood. As summarized elsewhere in this issue of Dialogue by Robert T. Divett, many Americans of the 1820s and 30s shared with Joseph a contempt for the bloodletting, cupping and purging with toxic compounds that had by then become the American standard.

Much of the popular rebellion against the medical orthodoxy of early America arose from a widely read book by John Wesley, founder of the Methodist church, entitled Primitive Physick. The book appealed to the colonial layman both by confirming his mistrust of an orthodox medicine which

seemed to alienate "physick" from ordinary man ("where it properly belongs") and by emphasizing that the use of herbs brought it back within reach (that "each man may be his own doctor"). The appeal was not limited to the uneducated. Thomas Jefferson, who once had observed that "the lads in Philadelphia, with their calomel and arsenic, are vieing with the sword of Napoleon for shedding the blood of man," proposed to the Secretary of War that the seneca root (cayenne pepper) be substituted for the troop's ration of grog, to combat the dysentery caused by Britain's intentional pollution of springs and wells.5

The Joseph Smith family was one among many to have unhappy experiences with early American orthodox medicine. Diagnosed by her doctor as hopelessly ill with consumption (possibly tuberculosis)—a dreaded disease which already had claimed two of her sisters—Joseph's mother Lucy found healing power in her prayer of faith. Orthodox doctors also gave up on Joseph's sister Sophronia during the devastating typhoid epidemic of 1812-13, but Lucy's touching prayer, together with those of Joseph, again seemed to turn the tide in Sophronia's recovery. When typhoid also struck young Joseph, causing the painful bone infection now called osteomyelitis in his leg, the family, in keeping with the then current state of the art, was advised that amputation was necessary. Although Joseph's leg was saved by the advanced skills of the orthodox Dr. Nathan Smith, the previous medical advice, as well as the grizzly scene presented by the unanesthetized surgery that saved the leg, dominated family memories of the event, and reinforced the impression of the unreliability of medicine. 6 Joseph, who was on crutches for three years, limped the rest of his life as a reminder of that experience.7 The event that most embittered young Joseph toward "the poison doctors," however, was the death in 1823 of his oldest brother Alvin, apparently from complications of a dose of calomel.

As orthodox medicine began to be challenged by herbalism during the 1820s and 30s (particularly in the Mormon areas of New England, New York and Ohio), the Smiths' experiences with heroic physicians led them to the more benign herbal remedies. Lucy personally "doctored" many of her Palmyra neighbors with herbal remedies,8 and Joseph's father in a possibly related venture attempted to go into the business of exporting New England ginseng root to China.9

Joseph Smith's early herbal leanings were likely reinforced as he began to read and reveal the scriptures describing ancient treatment methods. The materia medica of the rophen physicians of the Bible was essentially all herbal, with herbs mentioned over 37 times in Biblical passages. 10 Isaiah healed King Hezekiah of a near fatal boil with a dressing of figs (2 Kings 20:7). Rachel desired mandrake in an attempt to help her conceive (and Leah used it to win Jacob's affections) (Genesis 30:14-16). 11 The hyssop frequently mentioned, and given to Jesus upon the cross (John 19:24), was used anciently for infections and is of interest in that Penicillium notatum (the source of penicillin) is a fungus that grows specifically on the hyssop vine. Ezekial foresaw on trees growing along the river which was to spring from under the rebuilt Jerusalem temple, "the leaf thereof for medicine" (Ezekial 47:12).

Joseph also reported, from the golden plates, that Nephite fevers had been cured by "the excellent qualities of the many plants and roots which God had prepared to remove the cause of diseases" (Alma 46:40). And Latter-day Saints as well, Joseph revealed, were advised by the Lord that "whosoever among you are sick, and have not faith to be healed, shall be nourished with all tenderness, with herbs and mild food" (D&C 42:43). Through the Word of Wisdom he added that "tobacco is . . . an herb for bruises and all sick cattle, to be used with judgement and skill . . . all wholesome herbs hath God ordained for the constitution, nature and use of man" (D&C 89:8,10). While the latter reference is more in the context of foods than herbal remedies, it is clear that Joseph believed that God had endowed the earth with plants having healing capacity.

By the 1830s, the Popular Health Reform Movement also had spread from New England to Ohio. While not, strictly speaking, herbalist, this crusade had many advocates and ideas in common with the botanical approach. Spearheaded by Sylvester Graham (of Graham cracker fame), Ellen G. White, and later the Kelloggs and C.W. Post, the Popular Health movement condemned (as did prominent herbalists) the use of alcohol, tobacco, tea, coffee, opium and artificial stimulants. Excessive meat eating was condemned and grains encouraged. Enthusiasm for the reforms was high in Ohio, and in 1833, Joseph's inquiry of the Lord led to confirmation of the validity of several. The wording of the Word of Wisdom frequently parallels that of Health Reform tenants. In addition, there were other reformist (and often herbalist) health guidelines in Sections 89 and 88:124 ("cease to sleep longer than is needful; retire to thy bed early, that ye may not be weary; arise early, that your bodies and your minds may be invigorated").

A further symbiosis seems apparent between Joseph's revalatory experience and the influence of those stalwart Mormon herbalists constantly at his side, beginning in 1831 with his counselor-to-be Frederick G. Williams, and extending through Thomas B. Marsh (later President of the Quorum of the Twelve) to the Richards brothers (Willard, Levi and later Phineas). Each of these intimates practiced the herbal methods of Samuel Thomson, the highly unorthodox evangelist of anti-doctor herbalism whose influence had preceded the Mormons into each area they settled.

Thus it is more interesting than surprising to learn that Joseph, in 1834, denounced a teaching by Lyman Wight—a common notion often derived biblically—that "all disease in this church is of the Devil, and that medicine administered to the sick is of the Devil." Rather, Joseph advised the Far West High Council that,

It is not lawful to teach the church that all disease is of the Devil. And if there is any that has this faith, let him have it to himself. And if there are any that believe that roots and herbs administered to the sick . . . in order that they may receive health, and this applied by any member of the church, if there are any among you that teach that these things are of Satan, such teaching is not of God. 16

In Nauvoo, where the Saints were inundated with infectious and nutritional diseases, Joseph wrote:

I preached to a large congregation at the stand, on the science and practice of medicine, desiring to persuade the Saints to trust in God when sick, and not in the arm of flesh and live by faith and not by medicine, or poison; and when they were sick, and had called for the Elders to pray for them, and they were not healed, to use herbs and mild food. 17

He was more specific in his advice to new immigrants in 1843:

If you feel any inconvenience, take some mild physic two or three times, and follow that up with some good bitters. If you cannot get anything else, take a little salts and cayenne pepper. If you cannot get salts, take ipecacuanha ["pecosia" in manuscript] or gnaw down a butternut tree, or use boneset or horehound.

He added a caution, however, about herbal as well as orthodox medicine:

Calomel doctors will give you calomel to cure a sliver in the big toe; and they do not stop to know whether the stomach is empty or not; and calomel on an empty stomach will kill the patient. And the lobelia [herbal] doctors will do the same. Point me out a patient and I will tell you whether calomel or lobelia will kill him or not, if you give it. 18

Most of the doctors among the early Saints were Thomsonian herbal practitioners, so certified by a \$20 fee and a pledge not to reveal the secrets from Thomson's herbal guidebook to orthodox physicians (see the accompanying copy of Willard Richard's certificate). One wonders if such easy access to the practice of medicine contributed to Joseph's further caution:

You that have little faith in your Elders when you are sick, get some little simple remedy in the first stages. If you send for a doctor at all, send in the first stages.

All ye doctors who are fools, not well read, and [who] do not understand the human constitution, stop your practice. 19

Years later, Priddy Meeks, a colorful herbal evangelist who established herbal Councils of Health in Utah similar to a Thomsonian Board of Health authorized by Joseph Smith in Nauvoo, 20 observed

Joseph Smith said that Thomson was as much inspired to bring forth his principle of practice according to the dignity and importance of it as he [Joseph] was to introduce the gospel . . . then we should look on those [herbal] principles as an appendix to the gospel, as a temporal salvation.21

Whether Joseph actually said this or not, it is not unreasonable to think that he might have, given the setting and intensity of the herbalist philosophy in



To all Persons whom it may concern:

This may Certify, That I have this day appointed

Wishards of Mahashus to a Sub-Agent; and he is hereby authorized and empowered, to administer, use and sell the Medicine secured to SAMUEL THOMSON, by Letters Patent from the President of the United States; and also, to sell FAMILY RIGHTS, (signed by me, the Agent of SAMUEL THOMSON, with one of his New Guides to Health, and a NARRATIVE OF HIS LIFE, to each Right; all of which are to be furnished by myself,) to all suitable persons, except Physicians or their Students, and collect pay for the same. The price of FAMILY RIGHTS is, in all cases, Twenty Dollars. This agreement to continue and be in force for the term of if not previously revoked by me, or the Patentee.

Given under my hand, at Hochbridge

day of betolen in the year of the common era one thousand eight hundred and thirty- Three , and of the nation 58

Joseph Skirm Agent for Samuel Thomson.

Extra and Confidential to Agents, to be given at discretion to the Purchasers of Rights.

To prepare Conserve of Hollyhock... Take one pound of fresh blossoms; broise them in a mortar; add four parties sugar; pound them well together until it forms a paste. Then take the compound of two uncess of peplar because of bayberry, two cancess of golden seal, two cancess of cloves, two cances of cinamon, two cances of nerve are conces of eavenne, half cance of hister-root, mit them well together, and knead it with the peatle is a mortar an ames thick as dough. Then add one table-spoonful of the oil of pennyroyal; pound tham well together, to be keep at its opile. To be taken for all complaints caused by Cold, and other disease, without any regard to name over powder, with the same weight of ugar, made fine, will make good spice-bitters for wine. Put two cances of same distance quart. The powders may be eaten dry, or taken in hot water, with more sugar. No spirit is recommand and once quart.

Ty Three things are to be observed by agents, viz.

1. To do justice to the proprietor, yourself, and the public.

2. To sell no Recurs to Doctors, or those who have studied their authors for a rule of practice; as they will most assurcorrupt the System, as several have already done.

3. To keep no poisonous drugs in your whop, as no one should sell to others what he would not use himself, nor recomd to be used; or suffer any human blood to be shed, with the lancet or otherwise, by your comeant.

which he was immersed.²² Not only did the herbal approach have apparent scriptural endorsement and great contemporary popularity, but in actual practice Thomsonian physician Levi Richards had proved to be, in Joseph Smith's words, "the best physician I have ever been acquainted with."23

In addition to botanic practitioners, there were orthodox physicians appointed to positions of leadership within the early Mormon community. As in the practice of medicine, their ecclesiastical record proved the antithesis of their herbalist colleagues. Orthodox doctors John C. Bennett, and Expositor conspirators William Laws and Robert Foster caused serious problems for the prophet and his people. Among the regular physicians close to Joseph only Iohn Bernhisel, who contrary to orthodox practice accepted consultations with Thomsonians, proved faithful to the end.24 Bennett, as Mayor of Nauvoo and member of the First Presidency, could have wielded the greatest orthodox influence on Joseph, but ironically he instead drifted to herbalism during his stint in Nauvoo. He placed a series of articles in the Times and Seasons advocating tomatoes as a general panacea, 25 and according to Divett, he joined a Botanico-Medico Institute after leaving Nauvoo.

PIONEER MEDICINE

In early Mormon sentiment few physicians engendered greater animosity against heroics and in favor of herbals than did the infamous George B. Sanderson, "Doctor Death" to the Mormon Battalion. Sanderson, an orthodox physician of the heroic school who apparently relied exclusively on calomel, arsenic, bayberry bark and camomile flowers administered to man after man from the same old rusty spoon, 26 was assigned by the army as battalion surgeon to the Mormons. Mormon herbalist William L. McIntyre already had been appointed by Church leaders to care for the Battalion, and Brigham Young had made clear the Church position on proper medical care:

> Camp of Israel, Omaha Nation, Cutler's Park August 19, 1846

To Captain Jefferson Hunt and the Captains, Officers, and Soldiers of the Mormon Battalion: —

We have the opportunity of sending to Fort Leavenworth, this morning, by Dr. Reed, a package of twenty-five letters, which we improve, with this word of counsel to you all: If you are sick, live by faith, and let the surgeon's medicine alone if you want to live, using only such herbs and mild food as are at your disposal. If you give heed to this counsel, you will prosper; but if not, we cannot be responsible for the consequences. A hint to the wise is sufficient.

In behalf of the Council,

Brigham Young, President

W. Richards, Clerk, 27

Dr. Sanderson, however, "threatened with an oath to cut the throat of any man who would administer any medicine without his orders . . . under pain of this threat he [herbalist McIntyre] must not administer one herb to

his afflicted friends and brethren unless ordered so to do by the mineral quack who was his superior in office. Every morning at sick call, those who were unable to travel reported themselves to the surgeon, not only to receive his medicine but his wicked cursing also."28

Bitter antipathy toward "mineral quacks" (also called "the poison doctors") persisted for decades among Battalion returnees. At an 1855 reunion, Captain Brown offered a toast: "Here's to all oppressors of the Mormon Battalion, may they wither as the leek, and be carried by the Devil . . . Here's hoping old Dr. Sanderson's profession in the future state may be giving calomel to our enemies in hell."29

The first years after arrival in the Great Salt Lake Valley, the Mormon pioneers saw sickness running rampant, due largely to the primitive sanitary conditions.30 The overtaxed botanic practitioners determined to establish a "Council of Health" to teach each person how to care for himself with indigenous herbs. These councils were reminiscent of Samuel Thomson's "Friendly Botanic Societies" set up for similar purposes. Priddy Meeks claimed responsibility for establishment of the Council, which eventually had far reaching effects on Utah medical tradition.

The second winter we were in the valley, Apostle Willard Richards wintered in a wagon by a foot stove alone . . . We had but little time for ourselves, viewing the situation of so much sickness. I proposed to my two partners in medicine, Brothers Morse and Richards, for us to form some kind of an association for giving information to the mass of the people in regard to doctoring themselves in sickness so as to help themselves and lighten our burdens.

So we three went into the wagon to Apostle Richards and made known our wishes on the subject and he approved of it very readily and we formed a society. And Apostle Richards named it the Society of Health . . . the Spirit impelled Brother Richards to prophesy that those principles that we were about to publish to the world would never die out or cease until it had revolutionized the earth. That declaration was an impetus to me that is in my breast today. They saw fit to appoint me President of the Institution . . . they chose Doctor Morse and myself to scour the canyons every Wednesday in search of roots and herbs to present to the Council on the next day . . . the masses of people then began to profit by it because of the knowledge they had gained to know what to do.31

The first issue of the Deseret News (15 June, 1850, Willard Richards, editor) announced that regular Council of Health meetings were being held in Dr. Willard Richards' home every two weeks and added

though we may fail to convince some of the superiority of the botanic practice, we feel confident that our exertions under this head will shake the faith of many in the propriety of swallowing, as they have long done with implicit confidence, the most deleterious drugs . . . believing in the goodness of the creator that He has placed in most lands medicinal plants for the cure of all diseases incident to that climate, and especially so in relation to that in which we live.

The latter part is pure Thomsonian theory. How it fit with the need to import lobelia, along with cavenne and other eastern herbs forming the cornerstones of Thomsonianism, was never elucidated.

By 1852, attendance had expanded sufficiently to hold the Council of Health meetings in the old Tabernacle and later in the Social Hall. Women came from many communities to learn the herbal techniques for use at home, and the meetings abounded with testimonials of herbal cures and the evils of "the poison doctors."32

The meetings usually carried a distinctly religious flavor, with frequent speaking or singing in tongues, interpretation of blessings, and descriptions of "inspired" dreams endorsing lobelia. As a historian of the subject has noted, "It may not have been exactly what Samuel Thomson had in mind, but, as Dr. Phineas Richards wrote, it did make for a 'good meeting'."33

Within a few years, some with more orthodox leanings began to attend the meetings, but their attempts to attribute disease to violation of sanitation principles were met by considerable resistance from the majority who, despite Joseph Smith's remarks to the contrary, still viewed illness as arising from faithlessness and sin. In 1851, the Committee of the Council of Health attempted to persuade Orson Spencer, Chancellor of the University of Deseret, that the Council should become part of the University, a suggestion that Spencer quietly allowed to die.34

In keeping with Samuel Thomson's notion that mothers should be their families' doctors, the council drew most of its 300 members (1852) from Mormon matriarchs. 35 As W. W. Phelps observed, the purpose of the Council seemed to be "to learn females how to take care of themselves."36 With no resident physicians for many years, smaller Utah communities relied solely on the remedies and philosophies taught at the early Council of Health meetings. Such remedies were often handed down as family traditions, and form an important basis for today's warm feeling toward herbs in many Mormon homes. One doesn't need to look far for a favorite aunt with a passionate faith in certain herbs originally taught in these pioneer Council meetings.

Utah's first health law (1851) reflects the sentiment of the time. A list of "deadly poisons" was included, the unconsented use of which was punishable by a \$1000 fine and one year hard labor. The list of poisons "such as quicksilver [mercury or calomel], arsenic, antimony . . . or cicuta, deadly nightshade, henbane, opium [all herbs] . . . under pretense of curing disease" was remarkably similar to Thomson's catalogue of forbidden drugs, 37 and were the standard contents in the orthodox ("poison doctor's") bag. It is of note that herbs always have been used by orthodox doctors. As new herbs were accepted by orthodox physicians, however, they typically were rejected by the Thomsonians. A classic example is the quinine (from cinchona tree bark) that could have cured the malaria that plagued the Saints for decades, but which was condemned by many herbalists because of its orthodox acceptance.38

The Mormon Reformation of the latter 1850s brought a renewed emphasis on priesthood healing. The Saints were attacked from the pulpit for their

undue "trust in the arm of man" as evidenced by excessive reliance on doctors (of all types). Jedediah M. Grant, who replaced Willard Richards in the First Presidency, led the Reformation evangelization—and apparently died from the overexposure attendant upon his prolific rebaptizing of hundreds of recommitted Saints. From the Tabernacle podium Grant decried those who

first try the physician, have the head shaved, take a dose of calomel and gamboge, have blister plasters on the back of the neck, and another all over the bowels, besides one on each hip . . . when James is about dead, having had two quarts of blood taken out from him Saturday, and another on Monday, and when the life is nearly drawn out of the poor fellow by physicking and bleeding, why then they send for the elders, and ask them to pray for him.

Thomsonians were not exempt:

you know that it is hardly allowable in Utah to drink any more than five gallons of lobelia at once, for the Assembly of Deseret once had the matter under consideration.³⁹

This same symbol, that of "seeking the doctor first before the elders" as an indication of waning faith, was to be reemphasized even more frequently during the renewed reformation spirit later in the 1880s and 90s. Its emphasis apparently cooled even the herbalist fervor. As the original Thomsonians aged and moved out to distant settlements (Priddy Meeks settled in Parowan), and particularly with the death in 1854 of their key spokesman, Willard Richards, and with the reformation stifling any new generation of botanic champions, the herbal Councils of Health quietly died. The last reference to it appears in the Phinehas Richards journal of August, 1855.40

After this time, faithful but nonheroic orthodox physicians such as Dr. William France began to exert more influence. France, always careful to avoid offending the herbally inclined, intermittently recorded community health statistics in the Deseret News (after Willard Richards was no longer editor).

As Linda Wilcox has demonstrated elsewhere in this issue of Dialogue, Brigham Young's sympathies and counsel during the early pioneer years lay in the herbal camp. Eventually, however, he demonstrated considerable capacity to adapt his attitudes to changes taking place in medicine. With typical practicality he said,

If we are sick and ask the Lord to heal us, and to do all for us that is necessary to be done, according to my understanding of the Gospel and salvation, I might as well ask the Lord to cause my wheat and corn to grow without my plowing the ground and casting in the seed. It appears consistent to me to apply every remedy that comes within the range of my knowledge, and to ask my Father in Heaven, in the name of Jesus Christ, to sanctify that application to the healing of my body. To another this may appear inconsistent.41

In selecting medical counsel, he cautioned,

Now let me tell you about doctoring, because I am acquainted with it, and know just exactly what constitutes a good doctor in physic. It is that man or woman who, by revelation, or we may call it intuitive inspiration, is capable of administering medicine to assist the human system when it is besieged by the enemy called Disease; but if they have not that manifestation, they had better let the sick person alone . . . Who is the real doctor? That man who knows by the Spirit of Revelation what ails an individual, and by the same Spirit knows what medicine to administer. That is the real doctor, the others are quacks.42

THE ADVENT OF SCIENTIFIC MEDICINE

The arrival of the railroad in Utah (1869), bringing new physicians among the immigrants, coincided with a period when medical science was finding that many cherished theories were not only useless, but harmful. The heroic approach had been thoroughly discredited, and the notion that God had provided plants to cure disease was demonstrated to be true, at least to the extent that a few herbs were proved effective and safe, while newer, more useful ones were discovered. Generally, however, Thomsonian herbs were found to be less effective at safe doses than many herbs being used by the orthodox, but nonheroic doctors.43

Before 1900, fully 80% of all medicines were from roots, barks and leaves. Fluid extracts were prepared by percolating approximately one pound of crude botanical with one pint of alcohol; teas were similarly prepared. (These same methods are used by herbalists today.) Great unreliability was found once testing began because of the variations in "active ingredients" from one crop of herb to another, and to great fluctuations in the amount of the drug extracted in the fluid preparations. In addition, most herbs were found to contain a mixture of drugs, which often caused conflicting actions. For these reasons, attempts were made to isolate the "active ingredient" from herbs proved useful, a technique introduced in Germany in the early 1800s.44 By repeated testing, dosages were finally standardized and rendered more reliable. For the first time it was possible to achieve an effective yet not quite toxic dose. It is this therapeutic-to-toxic-dose ratio that determines a drug's usefulness. Eventually, in the twentieth century, these chemical components thus separated from a plant were created synthetically in the laboratory. The synthetically derived drug was often found to be more reliably absorbed into the body because of the lack of inert vegetable material encrusting it.

By the late 1800s the beginnings of modern medicine were taking hold. Germs of the bacterial variety were discovered. Public hygiene began to filter in from England, and the latest recommendations were published in the Salt Lake Sanitarian with gratifying results. In 1870, George Q. Cannon editorialized on the nature and prevention of infections. In an excess of germicidal zeal, the Women's Exponent labeled kissing "a pestilent practice and sure

means of spreading contagion" through "mingling breaths and mouth secretions."45 Other discoveries met with more resistance, however, as will be illustrated later in the immunization controversy.

The improved medicine coincided with a growing body of well respected orthodox physicians in Utah, and the waning of socially important botanics. The personable (and orthodox) Washington F. Anderson, who never fully accepted Mormon theology but made clear his appreciation for the Mormon people, became a good friend of Brigham Young, and has rightly been credited with leavening the medical views of Brigham and his followers. Within very few years after his arrival in 1857, Anderson became a dominant figure in Utah medicine, serving as division surgeon of the Nauvoo Legion, Chairman of the Board of (Medical Licensing) Examiners, and (in 1876) the first president of Utah's fledgling medical society. He was one of two men (with Brigham's nephew Seymour B. Young) on the staff of the Church's first hospital, and also with Seymour Young, cared for Brigham in his last hours.46

Seymour Young (together with a son of Willard Richards) was among a group of young Mormons called in the 1870s by Brigham, to go east to study scientific (orthodox) medicine, a signal of the prophet's changing medical sentiment. Seymour Young rose to become "city physician" for Salt Lake in 1876 and a member of the First Council of Seventy in 1882. 47 In 1875 Eliza R. Snow announced a plan to send a number of young women east to study medicine at the expense of the Relief Society. About twenty responded and returned to practice in the territory.48

As ailments mounted in his final years, Brigham placed himself in the care of his orthodox nephew, Seymour. Other General Authorities were also seen frequenting physicians' offices, thereby causing a stir among herbal believers. James Henry Moyle recalled,

When our neighborhood learned that the President of the Church and the chief officers of the church had regularly attended physicians whose services were actually called into use even when the sickness was not serious, it was something of a shock.49

In his final grizzly illness, Brigham again sought allopathic (orthodox) physicians and their morphine for his terrible pain. This choice in his most critical hours spoke clearly of the evolution of his medical thinking, even more so since three of the aoctors were not Mormon.50

OFFICIAL CHURCH SANCTION OF ORTHODOX MEDICINE

The first clearcut, official endorsement of allopathic medicine by the church came with the opening in 1882 of the Hospital of Deseret, established by the Relief Society. Dedicated by John Taylor, the hospital was staffed by six orthodox physicians, including Drs. Ellis Shipp (called by Brigham Young, educated at Women's Medical College in Philadelphia), Seymour Young, Washington F. Anderson and Romania Pratt (wife of apostle Parley P. Pratt).⁵¹ The Hospital of Deseret became the forerunner of the present church hospital system dedicated to the best in scientific medicine.

In 1883, an orthodox medical school, the Medical College of Utah, was established at Morgan by non-Mormon Dr. Fredrich Kohler. The school was encouraged by Church authorities, and the Bishop of Morgan, William Parkinson, was its first president. Emmeline Rich, wife of Apostle Charles Rich, became its prize student and later Professor of Obstetrics. Despite this implied church endorsement, the Salt Lake Herald, exuding the old antidoctor sentiment and fearful that the school might be one of the rash of unethical medical diploma mills popping up throughout the midwest (which it wasn't52), waged a vigorous and successful campaign to rid the territory of "the menace." Within three years (one full course) the school closed its doors.

In 1893, President Wilford Woodruff made clear his interest in extending scientific care when he travelled with Zina Young (General Relief Society President) through the smaller, medically underserved communities, soliciting three women per ward to come to Salt Lake City to study at a "School of Medicine" taught by Dr. Ellis Shipp. This seems to be an attempt to provide such communities with "well read" midwives, and to correct some of the earlier herbal philosophies propagated by the "Council of Health."

Some of the Saints regarded these hierarchical endorsements of regular medicine not so much as inspired but as an unhappy acquiescence to all the unfaithful Mormons who would seek the new physicians anyway. It was "better to have them turn to Mormon doctors than to gentiles." Modern Mormon herbalists hold the same view and see the change in sympathies as indicative of the loss of faith and inspiration within the church.⁵³ Faithful Mormons who welcome the change see it as an inspired response to a changing situation. However perceived, the historical record shows that church leaders essentially reversed their feelings toward orthodox medicine when it became more reliable.

As the Saints sought the help of physicians more avidly, with increasing therapeutic success during the 1880s and 90s, a new concern became evident. George Q. Cannon expressed this in an 1893 editorial in the Juvenile Instructor:

Children who are taught by their parents to desire the laying on of hands by the Elders when they are sick, receive astonishing benefits therefrom, and their faith becomes exceedingly strong. But, if instead of teaching them that the Lord has placed the ordinance of laying on of hands for the healing of the sick in His Church, a doctor is immediately sent for when anything ails them, they gain confidence in the doctor and his prescriptions and lose faith in the ordinance. How long would it take, if this tendency were allowed to grow among the Latter-day Saints, before faith in the ordinance of laying on of hands would die out? . . . There is great need of stirring up the Latter-day Saints upon this point. Faith should be encouraged. The people should be taught that great and mighty works can be accomplished by the exercise of faith. The sick have been healed, devils have been cast out, the blind have been restored to sight, the deaf have been made to hear, lameness has been cured, and even the dead have been raised to life, by the exercise of faith. And this too, in our day and in our Church, by the administration of God's servants in the way appointed. All these things can again be done, under the blessing of the Lord, where faith exists. It is this faith that we should seek to preserve and to promote in the breasts of our children and of all mankind.⁵⁴

Perceiving a dwindling of belief among the Saints during the difficult final decades of the nineteenth century, church authorities issued a vigorous call for renewed faith. As during the Reformation of the 1850s a number of the Brethren again cited "calling for the doctor first" (including herbalists) as a symbol of waning faith, and challenged the members to energize their priesthood and put their healing power to the test.55

With the turn of the century, sermons on lost faith mellowed, but reminders germane to our own day were occasionally heard. Susa Young Gates, writing in the first Relief Society Bulletin, urged:

This people are not narrow in their views on the subject of physicians, but we must sound a warning cry in the ears of the women of the Relief Society, that they fail not in their duty to teach lessons of faith in God and in the laying on of hands for the healing of the sick, to their families . . . Is there any lack of power in the Priesthood? On the contrary, there has probably never been more power and efficacy in the united ranks of the priesthood than at the present time.

About the same time (1902), President Joseph F. Smith also counseled that when faith was not sufficient to effect a cure,

let a reputable and faithful physician be consulted. By all means, let the quack, the traveling fakir, the cure-all nostrum and the indiscriminate dosing with patent medicine be abolished like so much trash.56

The opening of the modern, well-equipped Latter-day Saints Hospital in 1902 marked more clearly than ever the Church's endorsement of scientific medicine. A 6 January 1905 Deseret News editorial put this event into perspective:

The hospital is to be dedicated along the lines of 'Mormon' regulations. . . The prayer of faith is efficacious in all forms of affliction. But all people have not faith to be healed, nor do all who have faith possess it in the same degree. Remedies are provided by the Great Physician or by Nature as some prefer to view them and we should not close our eyes to their virtues nor ignore the skill and learning of the trained doctor . . . It gives evidences that 'Mormon' enterprise is abreast of the times and that L.D.S. are ready to avail themselves of scientific knowledge and progress, and are not slow to move with the movement of modern thought and learning.

Many Saints, however, continued to delay seeking medical aid until death was imminent.

THE FINAL CONTROVERSY

The Mormon embracement of scientific medicine had progressed to the point where routine as well as serious problems were generally entrusted to orthodox medical doctors. Some public health measures—"sanitary reform"—were also increasingly accepted after the turn of the century.57 Other such measures, e.g., the acceptance of immunizations, still generated strong sentiments very reminiscent of an earlier day.

Smallpox, entering the Salt Lake Valley for the first time in August, 1856,58 was present among the Mormons into the twentieth century. Often there were severe epidemics with a high death rate. Utah came to be considered by national public health officials a major source from which smallpox was spread to the rest of the country, and on at least two occasions it was alleged that Utah Mormons had started epidemics abroad—in England and New Zealand. Indeed, the state carried an infection rate early in the twentieth century several hundred times that of (vaccinated) east coast states.⁵⁹ This was attributed in large part to Utah's refusal to undertake a vaccination program.

Although available in the United States since about 1800, vaccination had never been accepted by the vast majority of Mormons. Utah pioneers relied instead, on such traditional approaches as hanging raw onions in the home. Even when the Church leaders came to appreciate the merits of vaccination and spoke publicly in its behalf, their recommendations were largely ignored. Such appeals by George Q. Cannon of the First Presidency (1870)60, by the sisters of The Woman's Exponent (1875–1878)61 and by Dr. Ellis Shipp (1888) (endorsed by the First Presidency) availed little.

When a smallpox epidemic struck Utah again, in 1900-1901, the public response was once again apathetic. The strain was so mild that some doctors doubted it was smallpox at all. This apathy greatly troubled the State Health Commissioner, Dr. Thomas B. Beatty, a non-Mormon, who feared that neglect would lead to rapid spread of the disease. To Beatty the only solution was compulsory immunization. Accordingly, at his behest, and with the endorsement of the Utah State Medical Association, the State Board of Health enacted an ordinance requiring children to be vaccinated before being admitted to school effective Christmas, 1900.

Leading the anti-vaccination forces was the influential editor of the Deseret News, Charles Penrose, who downplayed reports of the epidemic severity. Penrose had been raised in England under a compulsory vaccination law which many viewed as a violation of human rights. Perhaps more to the point, the English law had been implemented with primitive methods and virulent strains that seemed to cause more disease than it prevented. By 1900, however, techniques for producing and administering the vaccine had been improved greatly, and the grave dangers alleged by the anti-vaccinationists were largely a thing of the past. Feeling as strongly as they did about the validity of their respective positions, Beatty and Penrose became embroiled in a heated public debate. Adjectives like "ignorant . . . bigoted . . . radical . . . totally unwarranted" flowed freely.

The Deseret News editorials, regarded by many Mormons as the "Church" position, appealed directly to the anti-orthodoxy of the not-too-distant past:

The arm to arm method is consigned to the graveyard where lie buried so many of the nostrums that once made up the orthodoxy of medical science(?), by the side of phlebotomy [bloodletting], leeching, salivation, the denial of water to fevered patients, and similar monstrosities which it was once really dangerous to denounce.⁶²

Allegedly successful alternative remedies were published: cream of tartar, Epsom Salts and lemon. Some of the more hearty had used a tea made from sheep droppings. Frightening rumors were fanned, such as the report that a man had lost his arm as a result of vaccination. (In response to which Dr. Beatty offered a \$1000 reward to anyone who could produce such a case; no takers emerged.)⁶³

Ultimately an official First Presidency statement was issued. The 17 November 1900 Deseret News carried counsel, signed by Presidents Lorenzo Snow and George Q. Cannon, that "aware that there is a difference of opinion," they nonetheless felt it appropriate to "suggest and recommend that the people generally avail themselves of the opportunity to become vaccinated." It wasn't clear from the statement where the Presidency stood on compulsory immunization ("we have regarded it largely as a matter of individual choice"), and it was on this point that Penrose and the Deseret News carried forth their campaign unabated. An indication of where Mormons in general stood on the question came 30 January 1901 with the overwhelming passage over the Governor's veto, of the McMillan Bill, which rescinded the Board of Health's compulsory vaccination ordinance. The free choice issue which swaved the vote later erupted into controversy over whether quarantine was an unfair restriction of personal liberty, produced antipathy to a number of public health programs. 64 It resounds to our own day in attempts to keep unproven therapies on the market.

Despite the death from smallpox shortly thereafter of an Apostle and his wife—the only members on an expedition to Mexico to refuse vaccination—and a reaffirmation by the First Presidency several years later of its endorsement of vaccination, it was to be decades before most Utahans availed themselves of the tool which has essentially eliminated smallpox from the earth. Recalictrance among mid-twentieth century Mormons in "keeping up to date" with their immunizations is probably as much attributable to the apathetic view taken by most Americans to this necessity as it is to their unique medical heritage, but one still finds anti-immunization pamphlets in Utah health food stores beside the LDS herbalist books. The official church stance remains clearly in line with modern medical thought, and periodically the First Presidency reissues its recommendation that members insure that they receive recommended immunizations.⁶⁵

By the 1920s most Mormons were convinced that church leadership was correct in espousing the value of modern hospitals and scientific medicine—with the possible exception of smallpox immunization. Address-

ing in part those who remained unconvinced, Apostle James Talmage wrote.

But our belief in the gift of healing does not mean that we neglect all efforts which we know to be of good toward restoration to health. Some have charged us with inconsistency because we as a Church preach and solemnly avow that there is in operation today that gift of God known as the gift of healing, and yet we maintain hospitals, and foster the development of medical knowledge and surgical skill. I say some have charged us with inconsistency, for they say: 'If you believe in the gift of healing, what is the need of doctors, what is the need of surgeons, why build hospitals?' Because we know that 'there is a law irrevocably decreed in heaven, before the world was, and when we attain any blessing it is by obedience to that law upon which it is predicated': and the law is, in the instance under consideration, that we shall do all we can of ourselves. . . We must do all we can, and then ask the Lord to do the rest, such as we cannot do. Hence we hold the medical and surgical profession in high regard. . . When we have done all we can then the Divine Power will be directly applicable and operative.66

Note here that the initial step is no longer necessarily the priesthood blessing. Only after we have done "all we can" medically, in this view, will the "Divine Power . . . be . . . operative."

THE RESIDUAL PROBLEM

The past decade has seen a remarkable revival of both old and new "natural cures," often in concert with "health food" and megavitamin exponents. Strong lobby groups are demanding removal of federal drug regulations that limit the use of unproved drugs and methods, usually under the banner of "freedom of choice." This appeals to many Latter-day Saints grounded in a love of free agency and plays into the hands of LDS herbalists who argue that government restrictions are akin to Satan's pre-existent plan to force "good" choices on man.

Making free choices medically, however, is now a task requiring considerable pharmacologic and biostatistical expertise. A valid study of a medicine's effectiveness and safety requires that many patients participate in a "controlled" experiment—in which a totally inert pill identical in appearance to the medicine being tested is given, unknown to both doctor and patient, to half of the people in the study. This is essential because of the wide variation in the natural course of diseases, and because of the remarkable effectiveness of just "taking a pill" (the placebo response) in decreasing symptoms.68 Testimonials of isolated cures from a particular remedy are so unreliable as to be useless, except as suggestions for further critical study. The herbalist typically claims that his unorthodox methods are "proved" by his anecdotal experiences, but virtually any treatment (including the heroic therapies of 1820!) can be "proved" this way.69 While herbalists are notoriously unwilling to subject their remedies to critical scientific validation, many herbs, proved to be safe and effective, have been readily accepted by

the orthodox medical world, and great numbers of medicines originally of plant origin but now synthesized for economy and purity, are in common use.⁷⁰ It is important to emphasize that herbs *are drugs*, and cannot be regarded as safe without valid proof.⁷¹ (Three people died of herb poisoning in Utah in 1976).

In any case, coast-to-coast mass meetings are being held by the herbal lobby groups with a genuine revivalistic fervor, spiced with testimonials in a tone attractive to faithful Mormons for good and obvious reasons (and reminiscent of the Herbal Councils of Health). Mormon herbalists and vegetarians are starting to publish, heavily quoting leaders of the church's first fifty years. The bringing the evangelism of herbalistic, anti-medicine philosophies out from the underground, they are touting, to a larger Mormon audience, unorthodox herb medicine as a basic principle of LDS theology. They attempt to ease the peculiarity of their methods by noting that Mormons, after all, are a "peculiar people," and this is characteristic of all God's methods.

As a result of these enterprises, and also pleas from the American Cancer Society to clarify church position, the arguments were reviewed by church health officials and the First Presidency.⁷³

On 19 February 1977 an editorial in the Church News appeared, quoting James E. Talmage as above, and adding,

The Church, of course, deplores the patronage of health or medical practices which might be considered ethically or legally questionable. People with serious illnesses should consult competent physicians, licensed under the laws of the land to practice medicine . . .

After reaffirming faith in the power of the priesthood to heal, the article continued,

our belief in the divine power of healing should in no way preclude seeking competent medical assistance.

Concerned about the dangers both physically and spiritually of the herbalist attempts to tie onto the church, a few months later the First Presidency commissioned a member of the Twelve to write another *Church News* editorial, which appeared 18 June 1977. Health officials were informed by the office of the First Presidency that it represented official church position. 74 In the editorial, the Church "officially" disclaimed "fads . . . advocated under the guise of the Word of Wisdom by unauthorized persons with unwarranted claims respecting health." It also "completely" disclaimed "any sponsorship or endorsement of such teachers, remedies, foods or fads" that "use other phases of religion . . . to give further appearance of credibility to their projects." The editorial went on to reaffirm once again the Mormon view of medical care:

To refuse to accept assistance from the highly skilled men and women now available may be to reject the very help that could save a life. Some patients are known to have died from diseases which 'nature remedies' could not relieve but which proven medical practices could have cured . . .

Is it wise to turn our backs upon medical advances and place our hopes and our lives in the hands of unproven practitioners? Would we reject other forms of true scientific advancement? Would we do without telephones, radios or airplanes? Then why should we reject proven health care provided as a result of years of research?

Latter-day Saints may well follow the prophets in matters of health as in other things. Leaders of the Church accept sound advice from acknowledged professional men. They themselves submit to surgery and other forms of treatment as needed, and their lives have been extended as a result. Is not their example worthy of emulation?75

The Mormon position today is clear. To emphasize it even further, Mormons who use ecclesiastical influence to promulgate unproven methods have been put on notice that their standing in the church would be jeopardized.⁷⁶ This injunction may seem severe until one realizes that the basic premise of modern LDS herbalist arguments are precisely those that have led to "fundamentalist" apostacy in the past. The origin of the apostate cults of Mormonism is precisely this issue: an inflexible adherence to the old despite new prophetic direction. Herbalist fundamentalism fits the mold.

CONCLUSION

Has prophetic counsel on health really changed? Joseph Smith and Brigham Young advised the Saints to avoid the unproven and dangerous methods of their day, rather to stay with those remedies experience had shown to be safer. The counsel today is the same. What has changed are the medicines and techniques from which to choose and the sophistication with which they are evaluated.

Faced with the polemics of the various health and botanic reform movements, Joseph Smith chose the herbal camp, as both his background and the Mormon Scriptures would lead one to expect. It could be argued that since the "puke 'em, purge 'em, sweat 'em" methods of Samuel Thomson were really a botanic form of heroic medicine (substituting toxic lobelia for toxic calomel), even safer approaches might have been chosen (homeopathy with its totally ineffectual doses, 77 or staying strictly with the Health Reform Movement principles in the Word of Wisdom). In practice Joseph and Brigham appear to have been "simmered-down botanics," advising considerable moderation and wisdom in the use of herbal drugs. Their bias against the heroic physicians of their day has been scientifically vindicated.

The influential Thomsonian stalwarts, by establishing the herbal Councils of Health, had far reaching and long lasting influence on Mormon medical traditions, including the anti-orthodoxy sentiments persisting to our day.

With the advent of reliably proven medicines, the prophets have demonstrated considerable adaptability, clearly condemning unproven methods even if used by our remarkable forebears. Latter-day Saint herbalists, like Samuel Thomson, often claim their methods are "God's medicine vs. man's medicine." Herbs, however, frequently contain dangerous drugs, and the scientific method is our primary means of determining which plant has been "provided for man's use." It is misplaced faith, dangerous spiritually as well as medically, that holds strictly to dead counsel.

Illness, from which few escape, instills a need for both medicine and religion. For centuries the priest and physician were one and the same, and perhaps with good reason, mankind still has some difficulty separating them.

The author wishes to thank Lester Bush for his helpful suggestions in the preparation of this article.

NOTES

¹See for example John Heinerman, *Joseph Smith and Herbal Medicine* (Manti, Utah: Mountain Valley Publishers, 1975). This widely selling book perhaps best brings together many of the quotes used by herbalists, and demonstrates how they link faith healing with herbalism (e.g. Chapter 8), and the use of *unproven* herbs with trust in God and the prophet Joseph Smith (e.g. pages 17 and 24).

²L. Kay Gillespie, "Cancer Quackery in the State of Utah" (1976) p. 59 (prepared privately for the Utah Department of Social Services, Office of Comprehensive Health Planning.)

Ibid., p. 60-61. 4Ibid., p. 62.

⁵Allistair Cooke, address to the College of Physicians of Philadelphia, 8 July 1976. Wesley's *Primitive Phisick* went through 23 editions during his lifetime, with many more later including 7 editions in America between 1764–1839.

⁶Lucy Mack Smith, Joseph Smith and His Progenitors, (Salt Lake City, Improvement Era Press, 1902) Chapters XI, XV and XVI.

⁷Leroy S. Wirthlin, "Nathan Smith, Surgical Consultant to Joseph Smith" BYU Studies (Spring 1977) 17 (3):319-37.

Donna Hill, Joseph Smith, the First Mormon (Garden City, N.Y.: Doubleday, 1977) p. 43.

Lucy Mack Smith, Joseph Smith, pp. 47-49.

¹⁰The Jewish pharmacopaeia of Christ's time consisted of poppy (opium) leaves soaked in wine (for pain), lott (a sedative from opium), mandragora (from mandrake), various unguents and eye solutions, myrrh and spikenard smoke (for inhalation by asthmatics), and leeches (for swelling and hemorrhages). *Physician's World*, Dec. 1974, pp. 22–23. Old Testament passages about herbs are largely *descriptive*, rather than *prescriptive*.

¹¹Mandrake was anciently thought to be an aphrodisiac because of the masculine-figure shape of its forked roots and the irritation its podophyllin-like residue causes on the bladder (though scriptural, its use can hardly be considered divinely inspired).

¹²Sylvester Graham, The Aesculapian Tablets of the Nineteenth Century (Providence: Weeden and Cory, 1834), p. vii.

¹³Journal of Health (Philadelphia, 1830), Vol. 1, pp. 7, 13, 19, 36, 40, 98, 136, 154, 157-60, 219-20, 297-329. Ellen G. White, founder of the Seventh Day Adventist Church and primarily responsible for Battle Creek, Michigan becoming the center of Popular Health reform activity, was perhaps the leading evangelist of vegetarianism as a divine principle of health.

¹⁴The meat question is still being asked, with almost any opinion finding some scriptural support. The Lord's direction regarding whether to eat meat varied from Adam, who was vegetarian (Genesis 1:29-30); to Noah, when eating flesh was approved (Genesis 9:3-5); to Moses who ate only "dean" animals (Deuteronomy 14:3-21 and Leviticus 7:22-3 restricting goats and sheep); to Paul where "every creature" was approved (I Timothy 4:1-5). Direction in our dispensation states "whoso forbiddeth to abstain from meats . . . is not ordained of God" $(D&C \stackrel{4}{9}:18-21)$. Recently, some have questioned whether meat should be eaten in the summertime. The comma inserted in 1921 by James E. Talmage after "used" in D&C 89:13 at first seems to exactly reverse the original intent of "And it is pleasing to me that they [beasts & fowls] should not be used only in times of winter or of cold or famine." However, Hyrum Smith, himself a hearty meat eater, clearly interpreted the (unpunctuated) verse as it presently stands, with the comma (Times and Seasons 3:799-801).

¹⁵For the discussion of the Health Reform Movement and Temperance influence on Mormon health beliefs see Paul H. Peterson, An Historical Analysis of the Word of Wisdom (BYU Master's Thesis, 1972) pp. 6-20.

¹⁶The Far West Record, 31 August 1834 (Church Archives) Cf. History of the Church of Jesus Christ of Latter-day Saints, Period I, ed. B. H. Roberts (Salt Lake City, 1902-12) 4:11.

¹⁷Ibid. 4:414 (5 September 1841).

18Ibid. 5:356-57 (13 April 1843).

19Ibid. 6:59 (15 October 1843).

²⁰Robert T. Divett, "Medicine and the Mormons," Bulletin of the Medical Library Association 51 (1):2-3 (January 1963).

²¹"Journal of Priddy Meeks," Utah Historical Quarterly 10:199-200 (1942). This entire issue of the Quarterly is devoted to pioneer medicine, and offers excellent insights to the Saints' attitudes.

²²Nauvoo's health problems also led to other rather unusual practices. These included the baptizing for health both in the Mississippi river and in the new temple font, the blessing with oil of animals (often with good results), sisters administering to the sick by laying on of hands, and the setting apart by Joseph Smith of herbal physicians and midwives as a calling in the church. See for examples History of the Church 5:167-68; BYU Studies 18 (2):229-31, California Folklore Quarterly 3:103-4, Utah Historical Quarterly 10:34-36 (cf. D&C 31:10)

²³History of the Church 5:366 (19 April 1843).

²⁴As Divett shows (this issue) there were a few herbal black sheep as well, such as Sampson Avard, who formed the secret Danite society, and Isaac Galland who manipulated messy land deals in the name of the church. (See Leland Gentry, "The Danite Band of 1838", BYU Studies 14 (4):421-50 (Summer 1974)

²⁵Times and Seasons, 2:404 (1 May 1841).

²⁶Sgt. Daniel Tyler, A Concise History of the Mormon Battalion in the Mexican War, 1846–1847. (Glorieta, New Mexico: Rio Grande Press, 1969 [1881]), p. 146.

²⁸Ibid. pp. 146-47.

²⁹J. V. Long, Report of The First General Festival of the Renowned Mormon Battalion (St. Louis, 1855). p. 33.

³⁰The U.S. Census year ending June 1850 reports the Utah Mormons had "one death in every 48 persons, the highest of all states and territories except Louisiana."

³¹"Journal of Priddy Meeks" Utah Historical Quarterly 10:178-79 (1942).

32See for example J. C. Alter, "The Councils of Health," Utah Historical Quarterly 10:37-39 (1942) and Mrs. B. G. Ferris, The Mormons at Home, p. 199.

 33 From Phyllis Richardson, ''Thomsonian Influences in Early Mormon Utah History'' p. 14 (unpublished paper, Church archives).

³⁴Phineas Richards Journal, 30 March 1851 and 3 September 1851.

35Richardson, "Thomsonian Influences," p. 13. 36Deseret News, 24 July 1852.

³⁷Samuel Thomson, New Guide to Health; or Botanic Family Physician, Containing a Complete System of Practice, on a Plan Entirely New . . . (Boston, 1835), pp. 27-34.

³⁸The curious paradox is that cinchona (quinine) was initially introduced over the opposition of European physicians by a group of religious herbalists and one of the most fascinating quacks of all time (Robert Talbor)—see the story in Norman Taylor, *Plant Drugs that Changed the World*, (Dodd, Mead and Co., N.Y. 1965), pp. 82–86. Had quinine been available, Europeans likely would have entered Africa centuries earlier, and the history of the Roman Empire might be quite different.

³⁹Deseret News, 11 April 1855.

⁴⁰Richardson, "Thomsonian Influences," p. 20.

⁴¹Journal of Discourses (JD) 4:24-25.

42JD 14:225-26.

⁴³Many plant drugs from the allopathic (orthodox) doctor's bag are still widely used: foxglove (digitalis), snakeroot (reserpine), opium derived narcotics, datura (atropine, scopolamine), senna (laxative), Ephedra (ephedrine), Dubosia trees (Belladonna), casara, etc. Even aspirin is a plant drug, derived from the white willow (used anciently for arthritis).

⁴⁴Frederich W. A. Seiturner first isolated morphine from opium in 1803. Others came quickly, e.g., quinine from cinchona bark in 1820, caffeine from coffee (1820), atropine from datura leaves (1833) ephedrine from ephedra (1887) etc.

⁴⁵Richard Daines "Heroes and Horse Doctors: Medicine in Cache Valley 1857–1900" in Cache Valley—Essays on Her Past and People, ed. Douglas Alder (Logan: Utah State University Press, 1976), p. 71.

⁴⁶Lester Bush, 'Brigham Young in Life and Death; A Medical Overview" Journal of Mormon History, 5(1978):94–95.

47Ibid.

⁴⁸Daines "Heroes and Horse Doctors," p. 71.

⁴⁹Gene Sessions, Mormon Democrat—The Religious and Political Memoirs of James Henry Moyle, (Salt Lake City:1975) p. 11.

⁵⁰Bush, "Brigham Young," pp. 92–103. In addition to Young and Anderson, Brigham Young was attended at his death by Drs. Joseph and Denton Benedict. He officially died of "cholera morbus and inflammation of the bowels"—later considered by Seymour Young to be a ruptured appendix (*Utah Historical Quarterly 10:48*). Some aspects of the clinical picture are peculiar for that diagnosis, but in any event he suffered great pain with bowel distension causing breathing difficulty, requiring over nine hours artificial respiration.

⁵¹This first church sponsored hospital was located on Fifth East between South Temple and First South streets in Salt Lake City, and contained between 40 and 50 beds. It closed in 1890 for lack of funds. St. Marks (1872) and Holy Cross (1875) Hospitals had been in operation by "the gentiles" earlier (with Seymour Young on the staff of Holy Cross Hospital). The first hospital in the territory was actually opened in 1852 by "Doctor" Ezra Williams, a Thomsonian herbalist, in his home at 44 East North Temple, where the LDS Church Office Building now stands.

⁵²Robert T. Divett, ''Utah's First Medical College," *Utah Historical Quarterly* 31:51–59. John C. Bennett had previously been involved in establishing several unethical dollars-for-diploma medical schools.

⁵³See for example Heinerman, *Joseph Smith*, p. 73–74. He compares the absorption of modern medicine by church leaders to their establishment of ZCMI because of the clamor for eastern gentile goods.

⁵⁴Juvenile Instructor 28:669–70 (1893). It is of note that modern physicians are again becoming more sensitive to the role of faith in legitimate healing. See for example "Religion and Medicine Draw Closer", Medical World News (Dec. 25, 1978) pp. 26–29. Also summarized there

are two "controlled" studies of the efficacy of prayer in healing. C. S. Lewis notes that such an experiment is impossible, however, since one cannot genuinely pray for relief of suffering of one group and have no interest in the relief of those in the control group for whom supposedly no prayers are uttered.

55e.g. Lorenzo Snow JD 23:189-95 (1882); George Q. Cannon, Deseret Weekly News 49:449-51 (1894); also Millennial Star 50:194-95 (1888).

⁵⁶Improvement Era, Vol. 5 (June 1902) p. 624.

⁵⁷For example, an editorial by George Q. Cannon in the Juvenile Instructor 28:758-59 (1893) calls for filtering water to prevent typhoid.

58Deseret News, 13 August 1856.

⁵⁹Joseph A. Morrell, Utah's Health and You, (Salt Lake City: Deseret Book 1956) pp. 99, 179, 182.

61Woman's Exponent, 15 August 1878. 60 Editorial Deseret News, 29 June 1870.

62Deseret News, 17 May 1901.

63Salt Lake Tribune, 13 January 1901. The same claims are still quoted today in pamphlets found on the shelves of Salt Lake City health food stores.

64Morrell, Utah's Health, pp. 179-82.

65 Ensign, July 1978, p. 79. Also Letter to Stake, Ward and Mission Leaders dated 28 September 1976.

66Deseret News, 17 December 1921, (sec. 4, p. 11). Quoted in editorial, Church News, 19 February 1977.

⁶Largely stimulated to action by the laetril controversy, powerful pressure groups like the National Health Federation, the Committee for Freedom of Choice in Cancer Therapy, and the International Association of Cancer Victims and Friends are holding nationwide rallies, producing movies and advertising, and writing many books.

⁶⁸The placebo effect is probably not an imagined one. Recent neurochemical research has demonstrated chemical mediators ("endorphins" or "encephalins"), released from the brain by placebo administration, that have potent pain relief effects. The placebo effect can be blocked by narcotic antagonist drugs.

69As an example, lobelia (Samuel Thomson's favorite cure) has been prescribed in herbal guidebooks for heart attacks. [e.g. R. Swinburne Clymer, Nature's Healing Agents, (Dorrance and Co., 1963)]. Despite the fact that lobelia's nicotine-like action can be deadly in the heart attack setting, yet undoubtedly, somewhere an anecdotal case improved at bedrest despite, not because of the lobelia. Such is anecdotal proof.

70e.g. A survey by R. A. Gosslein and Co. found 47% of the new medicines prescribed that year to be of natural origin.

"Unorthodox herbal guidebooks back to Thomson claim to "eschew all poisons" (e.g. Clymer, Nature's Healing) yet advise Periwinkle (powerful bone marrow toxin), Lobelia for epilepsy (when it is known to cause convulsions in full doses), mistletoe tea for sedation (contains viscotoxin that can produce anemia, hepatic and intestinal hemorrhage), shave grass or horsetail tea as a diuretic (contains equisetine, a severe nerve toxin, plus nicotine), sassafras tea advocated for arthritis (contains Safrole, a liver-cancer causing agent and potent inhibitor of the metabolism of the other drugs), and pennyroyal to induce menstruation (has caused deaths from kidney and liver toxicity). Cayenne pepper, given for heart failure and intestinal disorders can aggravate both. Golden Seal, the herbal panacea that replaced lobelia, has striking effects on the cardiovascular system, but if taken in high dose, the effects are directly opposite to those in low dose; it has been pushed by herbalists for treating meningitis and diphtheria, likely to be lethal without orthodox care. The point is that unproven herbs are not benign "foods," but drugs of unreliable and potentially dangerous effects. Even vitamins in the huge doses "orthomolecular" practitioners advocate can be dangerous. (See Victor Herbert, "Facts and Fictions about Megavitamin Therapy," Resident and Staff Physician, December 1975 pp. 43-50). Other herb dangers are discussed in "Toxic Reactions to Plant Products Sold in Health Food Stores," The Medical Letter 21 (No. 7):29-31 (6 April 1979) and "Medicinal Teas-Boon or Bane," Drug Therapy (February 1977) pp. 178-88.

⁷²Including John Heinerman, Joseph Smith, also Joseph Smith and Natural Foods (Manti, Utah: Mountain Valley Publishers, 1976); Doris T. Charriere, Hidden Treasures in the Word of Wisdom (Salt Lake City: Hawkes Publishing Co., 1978) Part 2: Ch. IV "Herb Medicine"; Kristine Hughes Other Words of Wisdom (Provo, Utah: Biworld Publishers, 1975).

⁷³President Spencer W. Kimball was not unaware of the dangers. His sister had died of devastating facial cancer after prolonged delay of medical care because of her trust in ineffective naturopathic remedies (alluded to in A. E. and E. L. Kimball, Spencer W. Kimball, Salt Lake City: Bookcraft, 1977) pp. 262-63.

⁷⁴Personal Communication from Isaac Ferguson, Church Director of Personal and Health Welfare.

75 Exemplifying this position is President Spencer W. Kimball, who sought skilled medical care following powerful apostolic blessings promising control of his serious health problems. The physicians' skills became a large part of the means of implementing those blessings, his doctors recognizing divine direction in their medical decisions. Kimball, Spencer W. Kimball, pp. 389-90, 395-99.

⁷⁶Gillespie, "Cancer Quackery," p. 58. At least one bishop has been excommunicated for preaching the LDS herbal philosophies, and channeling ward members into unorthodox care against prophetic counsel.

⁷⁷An 1886-87 study at Cook County Hospital (Chicago) demonstrated that by that date orthodox medical treatment (non-surgical) had become better than homeopathic therapy (essentially supportive, with no effective medicines). See Martin Kaufman, Homeopathy in America (Baltimore, Johns Hopkins Press, 1971) pp. 150-51. Today otherwise dangerous herbs are often marketed as "safe" in health food stores by providing them in doses so small as to do nothing but provide a placebo—a homeopathic dose.