Public Health Initiatives

James O. Mason M.D., Ph.D.

Given at the first annual meeting of Collegium Aesculapium.

You will have to determine whether the following story is true or not. It begins in my backyard where I was using a power mower to cut the lawn. Without thinking I put my hand down to pick up an object I didn't want to run over. The mower blade hit a stone and one of my fingers was struck by the projectile. I ran to the house and told my wife that we should drive quickly to the nearest hospital emergency room. As we neared the hospital, I had expectations of passing through a door where an attractive receptionist would welcome me and show me into a room where I would receive treatment.

In order to become more efficient, changes had been made in the hospital's health-delivery system. As I neared the emergency room, I was confronted by two doors. Above one of these was written "Injuries" and above the other "Sickness." Having a medical education, I realized this was an injury and hurried through that door only to be confronted by two additional doors. Above one was written "Trunk" and the other "Appendages." My medical education came in handy and I went through the "Appendages" door only to be greeted by two more doors. One was labeled "Bruises" and the other "Cuts." I hadn't taken time to carefully examine my wound. I assumed it was a cut and proceeded through that door. Unbelievably, there were two more doors labeled "Bleeding" and "Not Bleeding." By now it had taken me so long to get through all those doors that my finger had stopped bleeding. Naturally, then I went through the "Not Bleeding" door—only to find myself back out in the parking lot.

This story illustrates several profound lessons. First, if anyone is interested in helping people enjoy good health—and it doesn't matter whether it's in the United States or a developing nation—first priority must be health promotion and disease prevention. We need to help people understand that good health is not compatible with putting hands near whirling blades or using tobacco or driving under the influence of alcohol. Teaching responsible health behavior to promote good health and prevent disease must be the foundation of organized health activities.

The second message from the story is when people do become sick or are injured they need to know how to care for themselves. This is the concept of self-care which includes first aid and home treatment of minor injuries and illnesses, such as preventing dehydration when a baby gets diarrhea. Physicians know that about 85 percent of patients walking into a doctor's office will get better whether they see a physician or not. People need to understand more about differentiating between what requires medical care and what can be treated at home. Imparting principles of self-care is the second priority that should be instituted in any nation.

Finally, when a person needs to interact with the health-care system, he or she ought to do it appropriately. The emergency room, except when there is a bona fide emergency, is not proper interaction. It is expensive and doesn't offer continuity of care. We are constantly working to keep Utah's Medicaid patients out of the emergency room when all they need is good primary care. In developing nations the primary-care center manned by nurses working under physician supervision may be a much more realistic primary-care model than is our physician dependent system. These countries will probably never have enough physicians to allow them to duplicate our system.

Many of us have felt a bit frustrated with the world health situation—billions of people, insufficient resources and trained manpower, overwhelming malnutrition and disease. Figure 1 depicts the 1980 world population. A quarter of that population represents people living in developed nations like the United States. The rest of the world's population lives in the developing countries. Look at projections for

the year 2000 and note the size of the pie representing total population. The world population has grown significantly from 4.4 billion to 6.1 billion. Notice the percent increase in those living in developed and developing areas during the 20-year period: 12.5 percent and 50 percent, respectively. We are apparently slipping backward.

Table 1, based on World Health Organization health and socioeconomic indicators, divides the world into 29 least developed, 90 developing, and 37 developed countries. The 1980 population is shown for each of these three groups. The infant mortality rate for each is 160, 94, and 19 per 1,000. What a difference. Life expectancy for the three groups is 45, 60, and 72 years. The other indicators, including GNP and per capita public expenditures for health, speak for themselves. Figure 2 further illustrates the magnitude of the difference between the least developed, developing, and the most highly developed countries. Where you are born has a very significant impact upon whether you live or die during infancy and the probability of your living to seventy years. We can't help but be discouraged as we hear these statistics and ponder what they mean. How do we handle a problem of that magnitude. It's staggering and overwhelming. Recently Dr. Val MacMurray, Dr. Alex Morrison, and I were at World Health Organization headquarters in Geneva, Switzerland. We heard again and again that these differences between the haves and the have nots are greater today than they were ten years ago. The world health situation is deteriorating.

What are we going to do about it? That's the question foremost in our minds. None of us has a very satisfactory answer. There is a little rhyme my children recite, "Inch by inch it's a cinch; yard by yard it's hard." Someone has said, "The way to eat an elephant is a bite at a time."

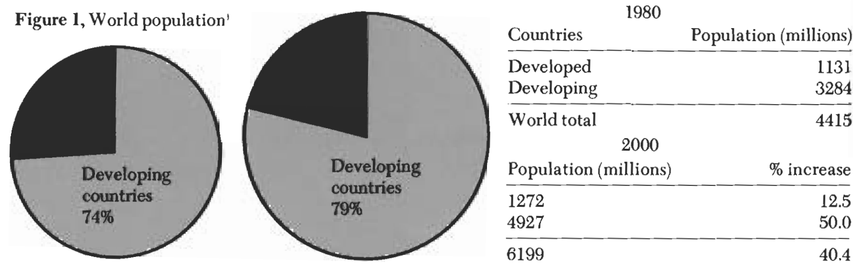
James O. Mason is the former director of the Utah State Health Department and is presently director of the Center for Disease Control, Atlanta, Georgia. He currently serves as a regional representative for the Church.

Table 1. Health and related socioeconomic indicators[1]

	Least developed countries	Other developing countries	Developed countries
Number of countries	29	90	37
Total population (millions)	283	3001	1131
Infant mortality rate (per 1000 liveborn)	160	94	19
Life expectancy (years)	45	60	72
Percentage of newborn with a birth weight of 2500 g or more	70%	83%	93%
Coverage by safe water supply	31%	41%	100%
Adult literacy rate	28%	55%	98%
GNP per capita	$170	$520	$6230
Per capita public expenditure on health	$ 1.7	$ 6.5	$ 244
Public expenditure on health as % of GNP	1.0%	1.2%	3.9%

Note: The figures in the table are weighted averages, based on data for 1980 or for the latest available year.

Figure 1, World population[1]



1980

Countries	Population (millions)
Developed	1131
Developing	3284
World total	4415

2000

Population (millions)	% increase
1272	12.5
4927	50.0
6199	40.4

[1]Global Strategy for Health for All by the Year 2000, World Health Organization, Geneva, 1981.

How and where might we begin? The Lord has given some specific direction:

"Verily I say, men should be anxiously engaged in a good cause, and do many things of their own free will, and bring to pass much righteousness" (Doctrine and Covenants 58:27).

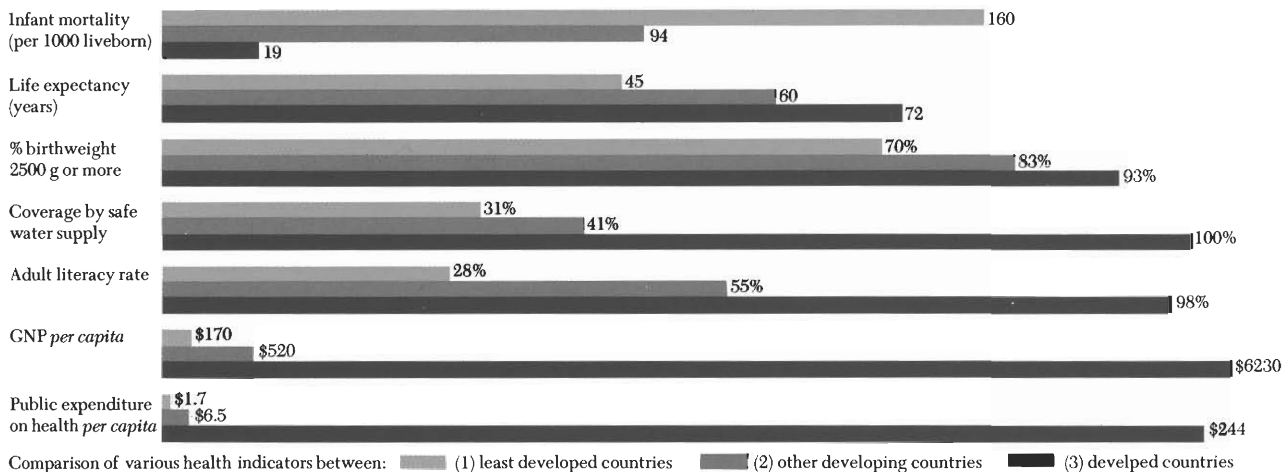
As we contemplate the tremendous health needs of the developing world, there is a tendency to postpone action. We may even be tempted to ask, "Why doesn't the Church do more?" The Church is doing a great deal. We still don't truly comprehend all it is accomplishing. It isn't always the flamboyant, glamorous things that count or make a difference. It's the tedious, long, hard work within the infrastructure that pays off. It's like the construction of a large building. A huge hole is excavated and a strong foundation is painstakingly created. It seems to take forever to reach ground level. When the foundation is established the building rapidly grows tall and becomes visible to all. That is what is happening with the Church in the developing world. The foundation is going in now. It will soon reach ground level and then its contribution in alleviating the suffering of the poor and hungry will be visibly significant.

We must not sit and wait. We want to be active members and tithe- and offering-paying members. In addition, within our means and abilities, we ought to be doing a lot of worthwhile things of our own free will. For example, Dr. Kim Bateman will soon be leaving for a month of service in Indonesia. He will provide medical care to people with great needs. The Church is not sending him.

Look what Reed Clegg and other returned missionaries from West Africa are doing. I don't believe the Church ever asked them to initiate the organization they have named Friends in West Africa. Did anyone tell them to do it? No, they just got busy. They began doing something that would bless the lives of others. A few of the returned missionaries who have already given a year of their lives plus their funds, and it is expensive to live in West Africa, have returned home and have not been content to sit in a rocking chair. They are involved.

Figure 2, Health and related socioeconomic indicators[1]

[1]Global Stratefy for Health for All by the Year 2000, World Health Organization, Geneva, 1981.



Comparison of various health indicators between: (1) least developed countries (2) other developing countries (3) develped countries

There is much we can do if we are truly interested. The Collegium could establish a foundation. You could contribute to the Thrasher Research Fund. The Friends of West Africa need funds, medicines, and supplies to continue and enlarge their work. AYUDA and other groups working in Central and South America need support. Kim Bateman, in going to Indonesia, is taking a bite of the elephant. The Friends of West Africa are taking a bite and if enough bites are taken, the elephant will be eaten. It won't be accomplished overnight.

One of my favorite scriptures is found in Doctrine and Covenants 104.

Starting with the 13th verse, the Lord says, "For it is expedient that I, the Lord, should make every man accountable, as a steward over earthly blessings, which I have made and prepared for my creatures."

He certainly fixes responsibility here. We are stewards. Great responsibilities are associated with the education and training we have received. Our education increases our stewardship and our accountability.

In the next verse the Lord declares, "I, the Lord, stretched out the heavens, and built the earth, my very handiwork; and all things therein are mine."

I talk about my wife, my kids, my house, and my car. I use the pronoun "my" very frequently. The Lord does not appear to agree with me. He says all things are his. We are stewards. It's like the parable of the talents. We are expected to be productive.

Continuing with the 15th verse, "And it is my purpose to provide for my saints for all things are mine."

The Lord says he is going to provide for his saints. One of the first and most important things to do if we are interested in the people living in developing countries is to make sure as many as possible become "saints" because the Lord said he would provide for them. We cannot avoid the Church's missionary emphasis and none of us wish to. We serve as missionaries, and we support missionary work. When these wonderful people are converted and become saints, the Lord has promised to provide for them.

He also tells us how he is going to do it.

Reading from the 16th verse, "But it must needs be done in mine own way; and behold this is the way that I, the Lord, have decreed to provide for my saints, that the poor shall be exalted, in that the rich are made low."

You see, he is going to provide for his saints in his own way by exalting the poor and making the rich low. There are a lot of poor, and they have great needs. But who are the rich the Lord mentions in this verse? Do any of you fit in that category? I think you do.

In what way are we rich? Every time we hear the word rich or poor, we think of money and possessions. We do have those items but much more than mere material things make us rich. Look at the knowledge we possess. Dr. Alex Morrison told us that all we really need to start giving those people are simple concepts. We're rich in those concepts. We take these riches so much for granted that we don't comprehend that someone else is poor because they lack them. Understanding basic nutrition, basic sanitation like hand washing or skills like home gardening are riches.

And the Lord said he would make the rich low while exalting the poor. When the missionaries travel to West Africa and live with the people they become humble and low. Those who listened to their glorious message were made rich. The missionaries, by imparting knowledge of the restored gospel and by teaching principles of agriculture, health science, and every other needed field, exalt the poor who become productive, well, and happy.

In the 17th verse, the Lord declares, "For the earth is full, and there is enough to spare; yea, I prepared all things, and have given unto the children of men to be agents unto themselves."

He assures us that the earth is full and there is enough for all. The Lord would not make an inadequate earth not capable of providing for all of his sons and daughters.

Why then are these people going without if there is enough? We find conspicuous consumption and unwise

stewardship on the earth. There is maldistribution, and farmers are paid not to grow food. Bondage and ignorance abound. Indeed, there would be enough and to spare if the people living on the earth would adopt the teachings of Jesus Christ. It was this way in America for 200 years after the Savior visited and established his Church. It was this way in the city of Enoch. Experts in the field of agriculture say that this earth, if properly managed, could support additional billions of people. It does not supply the needs of 5 billion today.

Doctrine and Covenants 78:5–6 gives us additional insight on the relationship between the rich and poor.

"That you may be equal in the bonds of heavenly things, yea, and earthly things also, for the obtaining of heavenly things.

"For if ye are not equal in earthly things ye cannot be equal in obtaining heavenly things."

And in Doctrine and Covenants 49:20:

"But it is not given that one man should possess that which is above another, wherefore the world lieth in sin."

We have tremendous responsibility. We have unequaled opportunity. How then do we move forward? We do it individually and collectively. We do it as Church members supporting and sustaining the kingdom and its purposes. We do it using our free agency.

We must remember a few basic principles. Dr. Hofden Mahler, director general of the World Health Organization, in a recent talk paraphrased the words of the Savior. He said charity should benefit both giver and receiver. The principle of charity is one of the underlying concepts of the gospel of Jesus Christ. Dr. Mahler also sounded this warning, "Chronic charity leads to chronic dependency."

In our desire to help, we must be cautious. Our goal is to assist people in achieving immortality and eternal life, not just to alleviate suffering, relieve pain, and prevent death. People who have lost their independence have difficulty with immortality and eternal life. We must provide incentives which lead to independence. A man should only be dependent upon the Lord and not upon another person or an earthly organization. We have heard the Brethren stress repeatedly that people should work for what they receive. That work must be re-enthroned as a ruling principle in the lives of all saints. From my experience, fortunately, the saints living in developing areas of the world seem particularly eager to carry their own weight. They ask only for opportunity.

The poverty, sickness, and suffering which has been depicted today has a chicken and egg component. It is not clear where it started. Does sickness create poverty or does poverty create sickness. This vicious cycle must be considered as we seek a solution. What if we simply prevented death by immunizing children or by protecting them from malaria without increasing the food supply. As Dr. MacMurray has said we might only end up with the dilemma of more people dying of malnutrition rather than infectious disease or parasitism. The approach has to be one of balance.

He assures us that the earth is full and there is enough for all.

We don't wish to withhold vaccine or prophylactic medicine. However, while we're creating an infrastructure to deliver health services, there must also be developments in agriculture. Jobs must be created.

Two quotes from the Brethren provide insight to their vision of what can happen. A statement President Marion G. Romney made a number of years ago in Mexico on charity and dependency is pertinent. He was asked by a reporter whether the Church had a welfare program. President Romney answered, "Yes, we do, and if you join the Church you can contribute to it too." That is the spirit—everyone becoming a contributor. We want to assist people in developing nations to become contributors not just recipients. That is the goal and whatever we do as doctors must lead in that direction.

Here is a statement by President Kimball I enjoy. It gets right to the point, highlighting the relationship between the gospel and the problems of developing nations. "At a press conference held in Mexico during our recent visit, one reporter stayed behind and badgered me. 'Why don't you feed these nations instead of preach to them?' he asked." President Kimball replied, "Why don't you feed them? Your church hasn't done anything substantial in this direction for 400 years. Why doesn't your church feed them? Give these people to us, and we'll open their eyes to a vision of eternity and show them how to reach up to the stars. We'll take this very people and make gods of them." These immense problems can be solved through the gospel of Jesus Christ. These people need a vision of who they are and what they can become. These nations will not turn around until the principles of integrity, work ethic, and charity are inculcated at all levels. This is no less important for developed nations if they are to maintain their health achievements or reverse the down turns in crowded urban areas.

Where does it all start, with missionaries or with health and agriculture programs? I don't think we know. Sooner or later to succeed it all has to be there. As you do things of your own agency, some countries may be opened up to the Church earlier than they otherwise would.

Can Collegium Aesculapium help by making friends with citizens and government leaders? Can missionaries ride the coattails of health and agriculture programs? I believe the spirit of the Lord is resting upon individuals and organizations such as this. We will be pushed and gently shoved by the Lord so that the exciting things that need to be done get under way.

As we become involved, there are traps we should avoid. Several years ago I visited with some local Church

leaders in Seoul, Korea. One of them said, "The Church has been in Korea for 17 years. Isn't it time it built a hospital?" He explained that other Christian churches in Korea owned hospitals. That was the Christian tradition. I asked him to take me on a tour of these hospitals. At each hospital I asked about occupancy. I didn't find one that was above 60 percent. Why? First of all, there were probably too many hospitals. Second, the Christian hospitals found it necessary to charge, and most people couldn't afford to use them. The result was poor occupancy.

Dr. Alex Morrison has talked about the bricks and mortar tradition that has been part of Christian missionary service throughout the world. Of course, some people are benefitted as a result of these institutions. However, use of equivalent money and people resources for prevention and primary care would have benefitted far greater numbers of people. Brick and mortar can be a millstone around an organization's neck. In Taiwan LDS missionaries with special callings go into the government hospitals and teach well-baby care, nutrition, and sanitation to mothers who have just had a baby. Their teaching in those hospitals has the blessing of the government of Taiwan. Disease and death are prevented, and contacts are made with young families. The Christian churches with their hospitals are stuck with edifices they can't maintain.

I'm not suggesting we shouldn't ever build a hospital or a clinic. But we shouldn't build it unless it is essential and no one else can do it. We must build on existing infrastructures, strengthening what is there or what we start will stop when we leave.

A word about prevention versus cure. There's nothing more important than receiving treatment when you're sick. But we've got to make sure that our priorities are relevant. Resources are finite. How do we get the greatest health benefit for the resources available? How do we help establish the models that will best serve the people? Dr. Emmanuel Kissey earlier mentioned a little child he saw in Ghana with incipient kwashiorkor. The need to treat this serious nutritional problem means that we are dealing with serious poverty or ignorance—perhaps both. No nation can afford to treat kwashiorkor. The cost of treating one case is many times greater than the cost of food for many weanlings. It's all but too late when the child is hospitalized. We must be acting on the front end of these problems.

Dr. Hofden Mahler has used the example of poliomyelitis. He mentioned polio treatment with an iron lung that cannot prevent dead and crippled children. He compared this with the cost of polio vaccine. It is always less expensive and more humane to prevent, and we cannot always cure. We can afford to prevent disease in thousands. We, at best, can afford to treat in ones and tens.

"Chronic charity leads to chronic dependency."

We will need to use money where it will serve the greatest number of people if a dent is to be made in the overwhelming problems of those vast developing populations.

A word on technology and morality. Dr. MacMurray and Dr. Morrison have mentioned that annually 5 million children die of diarrhea. Oral rehydration treatment costing only a few pennies per sick child would substantially reduce this awful mortality. Providing safe drinking water in a village would prevent most of the diarrhea from occurring at all, and little treatment would be needed.

How do we equate the value of one artificial heart operation to prolong the life by weeks of a person who is already approaching his 70 years with the use of the same number of dollars to prevent death in thousands of children? A $15 million jet fighter could be traded for many, many lives.

What is the morality of technology? We must not take life, but is society compelled to extend the life of a person by weeks or months at enormous expense just because the technology is available, particularly when there are unmet basic needs. Each government will find it necessary to make its own decisions and so will individuals. Where can we get the most bang for the buck? There will never be enough dollars. In fact, it looks like there will be less instead of more.

What kind of health system are we going to encourage when we work in developing nations? Will it be hospital-oriented or a prevention and primary-care system? What about practitioners? We have heard that there are few physicians in Nigeria or Ghana. Will we try to develop models which require one physician per about two thousand population like we have in this country or can quality care be rendered at much less cost using nonphysician providers supervised by physicians? Should we encourage these countries to replicate our system which is costing us more than 10 percent of our very large gross national product, or is there a less expensive way to provide quality health care? These are some of the decisions we must consider. What kind of models will we bring to these countries?

The World Health Organization has established a goal "Health for All by the Year 2000"—only 17 years ahead. I've seen two wonderful brothers from Ghana smiling as they heard that goal. I think I understand why. Yet we must establish goals, and those goals must be obtainable and measurable. I'm not sure that the WHO goal is either of those. It's a beginning, and it is laudable in its intent. Let's set some goals for ourselves if we are sincere about helping. Let's decide what we want to accomplish and work towards that end. Goals can be established that will do a tremendous amount of good for others and at the same time bring ourselves a great sense of accomplishment. The magnitude of the problem should not frustrate our desire to help others.

A long journey begins with a single step.