

2014 Prince Mahidol Award Keynote NEW/COPY

Professor D.A.Henderson, M.D., M.PH.
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It is a signal honor to receive the esteemed Prince Mahidol Award for Public Health. And for this, I am especially grateful to the Foundation. It recognizes an unparalleled achievement in medical progress – the eradication of a disease which had plagued mankind since the earliest days of written history – a disease which was universal and could and did spread everywhere and in every season – a disease which ^{I must remind you} killed 25% or more of its victims and left the others permanently scarred and sometimes blind. As recently as 1967 when the global program began, more than 10 million cases and 2 million deaths occurred in 43 countries. The last case was detected and contained just 10 years and 9 months after the campaign began. On May 8, 1980, the World Health Assembly announced that eradication had been achieved and advised that vaccination should be stopped everywhere.

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The fact that there has been no case of smallpox for more than 37 years is still difficult for many to grasp. And that is understandable. It is the only ^{human} disease that mankind has been successful in eradicating!

The achievement itself is worthy of celebration, more important was the demonstration of the potential for achievement when countries join together in a common effort. The smallpox campaign was unique in that, for the first time, it required the development of national vaccination and surveillance activities that extended throughout all populations however remote– of cooperation between countries and peoples that seldom communicated.

*SIMPPLICITY
IN IMPLEMENTING THE CAMPAIGN

~~For~~ eradication, there were many daunting obstacles. Smallpox vaccine had been available and in use for more than a century. However, when the program began, the vaccine was hopelessly deficient in quantity, in quality, and in heat stability. Research was needed to improve production and testing methods. Countries and laboratories had to be persuaded of the need for

Smallpox problem

international standards and quality control. New vaccination instruments and techniques for vaccination had to be tested and introduced throughout the world.

Field studies demonstrated that smallpox spread less readily and rapidly than many believed. It was discovered that a single successful vaccination protected for 10 years or more. New containment methods called "ring vaccination" were perfected which could contain widespread outbreaks when even a comparatively small proportion of the population ^{was B.E.M.C.} ~~had been~~ vaccinated.

Cumbersome, ineffectual management structures, both internationally and nationally, had to be finessed – delicately or forcefully as the needs dictated.

Throughout the program, communication was a challenge. Activities in some 40 countries were needed; our headquarters staff consisted of only 10 persons; international staff never numbered more than 150 world-wide. Communication was especially difficult and effectively limited to personal contact and ordinary mail. Telex and telephones were out of the question. And yet, as many as 150,000 health workers were active in the field during special programs.

The ultimate keys to success depended on the active involvement of national and local government authorities, laboratory scientists, epidemiologists, and the public – in planning, in educating, in participating, in problem solving. Surveillance reports documenting progress, innovations, and problems were distributed every 2 to 3 weeks; field staff contributed special reports as did laboratories.

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BELIEVE*

Success in smallpox eradication cannot be attributed to the dynamic insight or leadership of a few motivated individuals, or breakthrough discoveries in the vaccine field or in laboratories, or of special donations or contributions by agencies or national authorities. It was all of these and more. Thus, the recognition of the achievement of smallpox eradication highlights what can be ^{ACCOMPLISHED} ~~achieved~~ where there is interest, flexible innovation, research, and imagination.

I was first introduced to smallpox and the devastation caused by that disease nearly 50 years ago. Throughout the developing world, smallpox vaccine was virtually the only vaccine of any type that was available and little was provided outside of populated urban areas. More than 90% of the vaccine ^{failed} failed to

meet a minimum standard and most of it was not heat stable. ^{FEW COUNTRIES} ~~No country~~ had a vaccine program intended to reach all of its citizens.

Smallpox eradication catalyzed the early stages of a transformation. ^{CARRY THE VACCINE TO THE PEOPLE AND GET THEM TO PARTICIPATE} From the smallpox base many initiatives were to emerge: the expanded global programs for immunization; control campaigns for such as poliomyelitis, measles, hepatitis; vitamin A distribution; bed net distribution programs; and others. For each of these, the goal emphasized the need for inclusion of citizens throughout the country.

At this conference whose theme is Accelerating Equity, it is especially appropriate to recognize ^{SOME OF THE SUCCESSFUL PRINCIPLES} the role of smallpox vaccination as the earliest of global initiatives which ~~endeavored to reach all citizens and to provide needed equity to~~ ^{STROVE FOR} ~~all.~~ ^{FOR}

^A AND, AS WELL, ~~THE~~ CREATIVE, DETERMINED INTERNATIONAL STAFF NOT TO BE DENIED BY EITHER NATURAL DISASTERS OR THE PARALYSIS OF RED TAPE.



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