

Disappearing Diseases

Abstract for Harold Neu Conference

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The eradication of smallpox is now history, the last case having occurred more than 20 years ago. Skepticism that this or any other disease could be eradicated gradually waned over the years. Such skepticism has been replaced by a now prevalent view that almost any disease which can be controlled, should be targeted for eradication or, at least, "eradication as a public health problem", whatever that means.

Unfortunately, few of the now zealous eradicators have more than a superficial understanding of the smallpox eradication saga or its vicissitudes. That program succeeded but only by the narrowest of margins. Originally, the program was decided by the World Health Assembly by a margin of only two votes. The Director General and many scientists at the time were convinced it would fail and, indeed, there were a number of instances in which the margin between success and failure was a narrow one. And yet, smallpox had many more favorable attributes for eradication than any other disease.

Following a brief recapitulation of salient aspects of the smallpox eradication adventure and the principal lessons learned, features of the now current polio eradication campaign will be discussed along with cautionary views about launching yet new eradication adventures.

Smallpox eradication: Past and future
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Harold New Conference

①

20 years ago

~~at least briefly~~
at least briefly

Many of the age. John asked that I revisit to you the ~~past~~ ^{adventure} of smallpox eradication, ~~which~~ ^{which} concluded just 20 years ago as a reminder of what was achieved, at what price and what it might portend for the future. ~~After all,~~ ^{After all,} ~~he said,~~ ^{he said,} ~~how many of us in the i.d. field have even seen a case?~~ ^{How many recall what that disease meant to humanity?} ~~I ask myself that to me 20 years that the results of~~ ^{20 years ago do seem all that much like ancient history. What lessons does it offer to the future?} ^{Paraphrasing - choose your specialty to ease} ^{unintelligible still} ^{to man} ^{one the ways}

And so tonight, let me walk you briefly thro a bit of history - what smallpox has meant ^{since of it little known} ~~to mankind~~ ^{to mankind} how an eradication program ~~was born~~ ^{was born} - and struggled; and eventually succeeded but just barely - and why, ~~as a result of~~ ^{as a result of} the former chief of the ^{successful} ^{& date} ~~eradication campaign~~ ^{eradication campaign} ~~shuddered when he~~ ^{shuddered when he} ~~heard of yet another~~ ^{heard of yet another} ~~soldier's campaign~~ ^{soldier's campaign} ^{begin to twitch when} ^{a new} ^{evangelist} ^{proclaims that we will} now move on to the eradication of leprosy and tuberculosis and malaria and ^{urban} ~~villages~~ ^{villages} and poverty and hunger. - yes, they all have been subjects for futuristic proclamations.

Smalley

One of few diseases which we can be reasonably certain dates back 3000+ years. ①

< 10 000 yrs. - man to man - from animals? monkeys

Death rate 30% to 40%

② Goods + Probably served to alter history more regularly and dramatically than any other disease.
③ 18th century - Killed some 400 000 Europeans annually
in 80 yrs
a queen of England; an Austrian emperor; a king of Spain; a tsar of Russia, king of Prussia
⑤ MARCAULEY a queen of Sweden. ⑥ Ponsonby

The control of smallpox & the Industrial Revolution, in fact, were coincidental

as populations began to rapidly grow - industrialization followed.

④ Edward Jenner - 1776 - Blossom - Sarah - James Phipps

Cortez - 1520 - smallpox to Mexico -

Population of Indians - ~ 60-75 mill -

Cortez + Pizarro

⑧ Edward Jenner 1796 - Blossom ^{hide} Sarah Nelmes - James Phipps.
Cowpox - Vaccinia - not indigenous to us.

1800's Program was sporadic - preservation of vaccine in
Arm to arm vaccination until late 1800's

Civil War - 2 notable episodes - deserve mention.

- Gettysburg address
- Problem of inoculation syphilis.

⑩ 1926 - Swiss delegate

U.S. - smallpox transmission - stopped in early 40's

but, like every other country, vaccination continued - until 1972.

U.K. + Germany - special spec hospitals - until 1980's

⑪ World Health Assembly
1958 Victor Zhdanov -

1966 Continues World Health Assembly -

⑫ Status of smallpox

⑬ Geographic area

⑭ Strategy

⑮ Vaccination devices

⑯ Needle holder

⑰ What spec looks like

⑱ Spec - 1970

⑲ Spec 1973

⑳ ㉑ ㉒ Movement in sub-continent

㉓ The search
㉔ Reward

㉕ The bridges

㉖ Cure for South Asia → Bangladesh.

㉗

(2) Ethiopia

(18/29) Problems of travel

(30) Helicopter

(31) Epi curve

some part

(32/33) WHA - solemnly declares
L A new thing

Cost = \$100 000 000

(34) EPI

(35/36) Why not eradicate other diseases? -

Two most likely candidates - polio, measles

But, as I shall elaborate tomorrow, perhaps we will have yet another opportunity to eradicate smallpox.