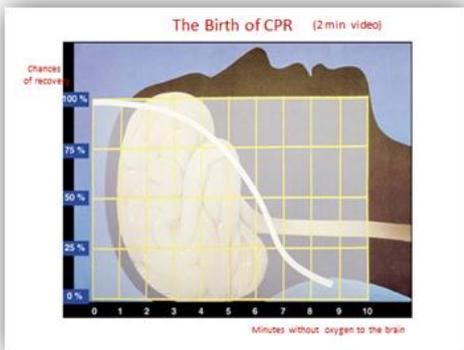


Nurturing the “Aha! “moments



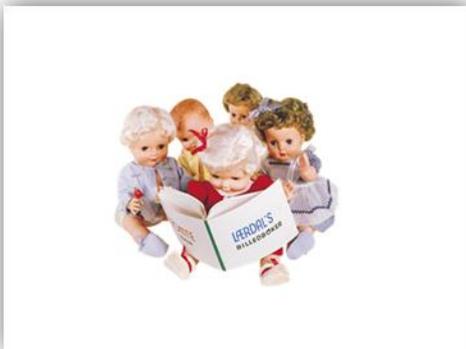
Seattle currently celebrates the 50th anniversary of the Space Needle and the World Fair in 1962.

Our story starts during the erection of the Eiffel Tower for the World Fair in **Paris, in 1888**. A young girl is found drowned in the river Seine. No one knows who she is a dye cast is made of her face for identification purposes. Her identity remains unknown. But her peaceful enigmatic smile intrigues authors and painters for decades to come. Albert Camus describes her as “the drowned Mona Lisa”. Recently, BBC produces a documentary on The Unknown. Last week, a new stage play **Legend of L’Inconnue** has it premiere performance in London.

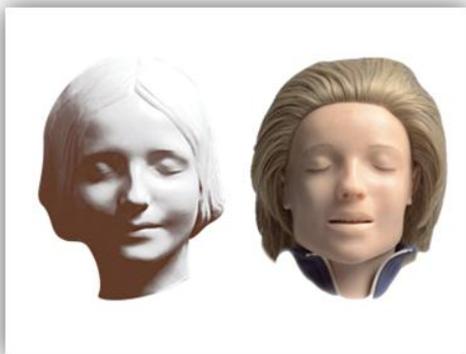


In the late 1950s, researchers at Johns Hopkins University in Baltimore are making remarkable discoveries, leading to **the birth of modern resuscitation**. Death is being redefined; from when breathing or heart beat stop to a process starting some precious minutes later when the brain cells start dying from lack of oxygen. And most important, this process is reversible.

(Video clip – 2 minutes)



At this time, my father, Asmund S Laerdal, is a successful toy manufacturer in Stavanger, Norway. He has recently introduced the Anne doll, being the first doll with natural stitched hair, soft unbreakable parts, and sleeping eyes. He hears about the new methods of saving lives from some doctor friends, and gets almost obsessed by the thought of developing **a life-size lifelike doll** that could help disseminate the methods to the public at large. He is motivated by a personal experience a few years earlier – a near drowning in the family, and a strong entrepreneurial spirit.



But what should the face of the human size doll look like? How could it be made so appealing that people would really want to make the effort of starting mouth to mouth resuscitation? It must be realistic for a person that till now had been considered dead, but not scary.

Luck often strikes the prepared mind, and he no doubt has **an Aha! moment** when he sees a copy of the death mask of the Girl from the Seine on the wall in his in-laws’ living room. The beauty and mystique of the face intrigues him, as so many others. He asks the sculptor Emma Mathiassen to create a functional face based on the mask.



He calls on a local anaesthetist, Bjørn Lind, for advice on anatomical correctness. Nine months later he visits with Peter Safar in Baltimore with a functional prototype. The two clicked and became lifelong friends. Resusci-Anne is introduced in 1960.

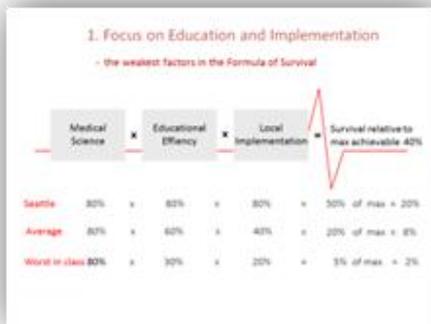
At the Golden anniversary of modern lifesaving in 2010 the American Heart Association estimated that 3- 400 million people around the world have been trained in CPR; most of them on Resusci Anne. CPR is being recognized as one of the most **significant public health initiatives** in the last two generations, and may have saved some 2 million lives.



Toy production was discontinued only three years before my father's premature death in 1981. The company today is fully focused on its mission helping save lives. It remains a family company, now with 1500 employees in 25 countries.

So, have our CPR experience taught us anything of relevance for *Saving Lives at Birth*?

I believe there are **four main lessons**;



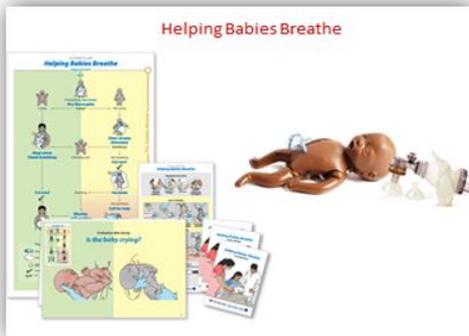
First, CPR – as any new medical science – can only reach its lifesaving potential when combined with **efficient education and local implementation**. The Utstein Formula of Survival suggests that chances of survival is a product of these three factors. Current evidence suggests that - In the perfect world - up to 40% of sudden cardiac arrest victims could survive.

Seattle - the community most experts would agree has the best EMS system in the world today – has a balanced high score, of say 80%, on each of the three factors. This delivers a survival rate of 50% of the “perfect world”, i.e.20% of all sudden cardiac arrest victims leave hospital in good condition in Seattle today.

In comparison, average survival rate among US communities is around 6-7%, and the worst in class communities have no more than 2 % survival rate. Such great variances in outcome cannot be explained by different medical guidelines, training manuals, or equipment in ambulances and hospitals; all US communities are similar in these respects; The reason is **local differences** in education and system implementation.



A second lesson learnt is that **education must be easy to learn and remember**. Resusci Anne has been further developed over the years to meet with evolving needs. Together with the American Heart Association we a few years ago developed a self-training kit for lay rescuers, targeting in particular school children. The course is video-coached and takes only 20 minutes. The \$30 kit is often sponsored by an insurance company, or some other organization, so that it can be taken home to train parents and grandparents.



Thirdly, CPR can save most lives when applied to newborns in developing countries.

The American Academy of Pediatrics (AAP) has led Newborn Resuscitation Training for decades, with courses reaching over 3 million health care workers in more than 100 countries.

Four years ago we were invited to collaborate with AAP to develop a much simplified course, leading to the **Helping Babies Breathe** program. This has a very visual action plan that applies the colors of the traffic light. 10% of all babies are born in the yellow light zone and need help to start breathing. There is only one golden minute before the light switches. The course teaches simple steps to help bring the baby over to the green zone and avoid the situation worsening into the red zone.

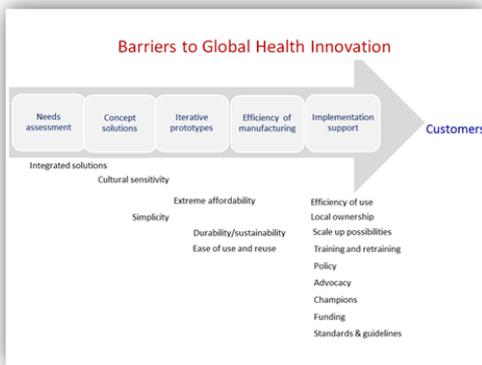
To enable hands on training we have developed NeoNatalie , a \$ 50 newborn simulator that can be filled with water for added realism and the penguin suction that can be opened for cleaning and boiled for disinfection. A simplified bag mask device is in final development.

My Aha! moment was when I realized that this course had the potential to save tenfold as many lives as CPR was doing for cardiac arrest patients. Moreover, saving a newborn could save 50 or more life years for each patient.

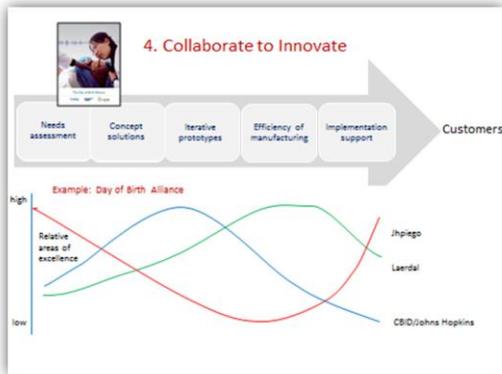
This stimulated the establishment of Laerdal Global Health, and a commitment to operate this company on a not-for-profit basis in support of MDG 4. The figure of the two men representing the story of the good Samaritan – used in the established Laerdal Medical logo – is replaced by the contours of Mira and Shifa – representing the first official save from the HBB project in Bangladesh - in the logo of the Global Health company

USAID liked the HBB program and initiated a **Global Development Alliance** to support its implementation. Next week 80 representatives from now soon 10 partners will meet in D.C. to be updated on how HBB – only two years after launch – is now introduced in 48 countries. And we will hear how the implementation in Tanzania and other countries is showing promise of reducing death from birth asphyxia with as much as 50 percent, when well implemented.

With several hundred thousand birth attendants now underway to be trained in the HBB program it hardly took an aha-moment to see the opportunity for a similar program for training the same providers in **Helping Mothers Survive**. This triggered a collaboration with Jhpiego and the development of the MamaNatalie Birthing Simulator.



The Grand Challenges focus on new innovative concepts. But **“Innovation is not what innovators do; it is what is being adopted by customers.”** (Michael Schrage). This requires attention to all links in the business process – and not least to the barriers to effective implementation. These are even higher in the global health setting than in the context of dissemination of CPR in the developed world.



This brings me to the fourth lesson; Innovation is often facilitated by **collaboration with partners with synergistic capabilities.**

Here’s how this work out in the **Day of Birth Alliance**; which we have established with the Center for Bioengineering Innovation & Design, and with Jhpiego, an affiliate of Johns Hopkins. Jhpiego has its core competencies in needs assessment and implementation, CBID in concept solutions and iterative prototypes, and Laerdal in industrialization, educational support and implementation.



Laerdal Global Health is privileged to be a partner in three development alliances. The latest, the **Survive & Thrive alliance**, was launched by secretary Clinton at the Child Health Summit last month. “Every child should be able to celebrate his or her 5th birthday”, she stated, adding her own photo at age 5 to the collection of others on the “Every Woman Every Child” website.



Here’s me, at age 2; after being saved from a near drowning by my father. I was found lifeless face down with the head under water. A pocket of air trapped in the back of my rain jacket had kept me floating. But vigorous stimulation made me vomit water and start breathing again. **Yes, maybe this was my father’s Aha! Moment** or at least an unwitting contributor.

And here’s my son Jon Asmund in 1985, at age 5, practicing on Resusci Junior, a child manikin dye cast from his body.

Thank you for the opportunity to speak to you today and for your kind attention. I am looking forward to learning more about *your aha-moments* at the open marketplace tomorrow, and wish you all success in helping save lives at birth.