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Aravind: Partner and Social Science Innovator

Innovations Case Discussion: Aravind Eye Care System

The Aravind Eye Care System has dramatically improved the quality, volume and efficiency of eye care delivery in India and inspired health workers worldwide. Dr. G. Venkataswamy conceived Aravind's mission as working towards the elimination of needless blindness worldwide through innovative health care and the development of strong partnerships.

In 1978 Dr. Venkataswamy (known to many as "Dr. V") was one of the founding directors of the Seva Foundation, based in the United States. Seva was created by veterans of the smallpox eradication program, and set as one of its goals the elimination of needless blindness, beginning in Nepal and India. Dr. V was a central force in the growth of the Seva Foundation, and remained so until his death in 2006. Seva's collaboration with Aravind began with small grants to subsidize the cost of cataract surgery, but soon grew to one of collaboration in epidemiological and operations research, placement of expert volunteers, and staff development. Dr. V. never hesitated to make Aravind's resources available to Seva, and Seva enthusiastically responded to Aravind requests for help in identifying the technology, consultant or system support needed for its growth. It has been nearly 30 years of an unprecedented partnership.

Larry Brilliant is the Executive Director of Google.org. Brilliant is an M.D. and M.P.H., board-certified in preventive medicine and public health. He is a founder and director of The Seva Foundation, which works in dozens of countries around the world, primarily to eliminate preventable and curable blindness. He also serves as a member of strategic advisory committees for the University of California-Berkeley School of Public Health, Omidyar Network, and Kleiner Perkins (KPCB) Venture Capital. In addition to his medical career, Brilliant co-founded The Well, a pioneering virtual community, with Stewart Brand in 1985. Brilliant lived in India working as a United Nations medical officer for more than a decade where he played a key role in the successful World Health Organization (WHO) smallpox eradication program and has recently worked for the WHO polio eradication effort as well. In February 2006 he received the Sapling Foundation's TED Prize.

Girija Brilliant holds an MPH and a PhD in Public Health Administration from the University of Michigan School of Public Health. She is a founder of the Seva Foundation, and a member of the Foundation's advisory circle.

As Seva's eye programs expanded, Aravind offered to provide training to new Seva field staff and partners. Seva eye care workers from Nepal, China, Cambodia and Tanzania trained at Aravind. In addition, Aravind sent senior staff to assist in program development, hospital design and operations training at Seva eye programs. All of this was freely given by Aravind to nurture a growing network of effective eye care centers. One of Seva's major projects, the Lumbini Eye Institute in Nepal, has grown from a small abandoned ward of a rural district hospital to its current campus with 220 beds and comprehensive eye care services. Lumbini now performs 25 % of all the sight restoring surgeries in Nepal. The Aravind approach to cost recovery was successfully adapted here for the first time outside India, as was its emphasis on reaching the entire community, regardless of patient's ability to pay for services.

As a new generation of eye care providers emerged, Lumbini became a training and research center, modeling itself after Aravind. Today, staff from China, Cambodia, and Bangladesh comes to Lumbini for training just as decades earlier, the Lumbini staff went to Aravind.

In 2005, with the encouragement of Aravind, Seva launched the Center for Innovation in Eye Care in Berkeley, California, to serve as a vehicle for scaling up strong sustainable eye hospitals. One of its key activities is the development of the Centers for Community Ophthalmology ("CCO") Network, designed to facilitate the rapid growth of eye hospitals and service programs around the world. These "CCOs" include at least one institution in every region of the world and this work draws strongly on Seva's partnership experience with Aravind as it developed the pioneering LAICO (Lions Aravind Institute of Community Ophthalmology).

A second major way in which Aravind has shaped international eye care has been through its emphasis on understanding the human aspect of sight restoration. This began with Dr. V's insistence that research be done to find out why rural patients who could benefit from surgery were not coming, and that this research be done by social scientists with an appreciation for the variety of socioeconomic

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forces that affected patients. Aravind looked at social markers that had the strongest association with eye care utilization, and found that literacy and gender largely determined who got surgery and who stayed blind. Globally, women carry a greater burden of blindness than men; two out of every three blind are female.¹ More women are blind—not because of genetic propensities, but because worldwide, utilization of preventive and restorative eye care for females has not been equal to those of their male counterparts.² This inequity begins in childhood. Recently, gender disparity in all health care has become a vital issue. Today, Aravind, Seva Foundation, Seva Canada Society, World Health Organization, Al Noor Foundation, Canadian International Development Agency, the International Agency for Prevention of Blindness and member organizations have framed gender inequity as a human rights issue, affirming that the ‘right to sight’ should be equally available to women and men.

The approach that Aravind pioneered of using social science research to understand who is in need of eye care and what is needed for them to receive it continues in the work being done in Africa and Asia to promote gender equity in eye care. Even now, 30 years after its founding, Aravind continues to light the path of innovative healthcare worldwide.

Resnikof S, Pascolini D, Etya’ale D, Kocur I, Pararajasegaram R, Pokharel GP, et al. Global data on visual impairment in the year 2002, *Bull World Health Organization* 2004 Nov; 82(11): 844-51.

Courtright P, Abou-Gareeb I, Lewallen S, Bassett KL. Gender and Blindness. Gender Health. World Health Organization, Department of Gender and Women’s Health, June 2001.