Solutions for the Looming Cancer Wave in the Developing World: Moving from Compassion to Commerce

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Editorial

The horizon ahead for cancer care is not bright for my friend Linh from the Bac Ha village high in the mountains of northern Vietnam, recently found to have breast cancer. As communicable diseases retreat from the headlines with aggressive vaccination, sanitation and other public health measures in the developing world, the burden of non-communicable disease, most notably cancer, rises to take the place of smallpox, malaria and their cousins [1]. Significantly this happens just at the tipping point of individualized treatments for many cancers, when precision diagnostics and the ensuing targeted therapies enable minimization of side-effects and maximization of response, the combination of which raises the cost of care appreciably. Given the economic constraints of developing countries, and the inherently constrained infrastructure currently extant, it is not difficult to predict an abundance of excess mortality in the developing world. All due to inaccurate or incomplete diagnosis, constrained access to trained cancer care physicians, and exorbitantly priced precision medicines.

The Albert-Schweitzer-like response of prior generations, while admirable for the demonstration of personal compassion is neither scalable nor sustainable in the face of the daunting wave of disease looming ahead. Current efforts on the part of organized medicine and non-governmental charitable groups, again nobly reflecting the very best of man’s character and compassion, often struggle for both funding and staffing, whether volunteer or paid, and seem to be able to gain traction mostly in fairly limited ranges of the problem [2,3]. And even when collaborating with governmental and international funding sources these may struggle to penetrate deeply enough into the social and geographic structure of a poor nation to meaningfully impact disease burden [4].

Is there a lesson to be drawn from experience with telecommunications perhaps? With the availability of even very low-end cell phones, most developing countries “leap-frogged” the land-line stage of telephones entirely. This was made possible by the disruptive technology offering that solved in a “good-enough” manner the common man’s problem on an economic scale that was suited to his situation [5]. If the only option had been a high-end smart phone costing hundreds or thousands of dollars, my friend Linh in the rural village in the mountains of Vietnam would never carry a phone. But a five dollar phone that costs pennies to make a call meant that she and her husband could both afford one and benefit there from.

So in a world of accredited hospitals, licensed and board certified care-givers, and GMP-standard-adherent and FDA-approved pharmaceuticals, we find it hard to look at the problem of developing world healthcare with anything but dread for the enormity of the economic costs. Perhaps it is time to take off the blinders of these historically significant, important advances and ask if in a flattening world it is not time for a disruptive innovation that can offer “good enough” (better) cancer diagnosis and care for the millions who will otherwise have none at all; and better yet, offer that in a manner such that rising economic fortunes can then drive that provision steadily up market (from flip phone care to smart phone standards essentially) vastly enlarging the market for all oncologic care products and making the changes needed sustainable. These innovations need to happen in the lab and diagnostics space, in the options for treatment realm of medication, surgery and other modalities, and in the whole setting for delivery of care, all perhaps in ways we have not yet conceived possible. If experience in other industries (steel mills, personal computers, etc.) is to be trusted, [6] the vision to see and invent those new paradigms are not likely to come from legacy systems and settings where we are blind to see them or prevented from trying them by the status quo and regulatory barriers. It is time to set up the off-shore independent divisions or start-ups that can disrupt us, and open cancer care to those who are sure to need it. Linh may have succumbed by then, but her daughter’s destiny is in our hands now.
References


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3. Partners for Cancer Diagnosis and Treatment in Africa. 2018.

4. The Union for International Cancer Control. Who we are- about us.
