THE LARGEST UNPAID HEALTHCARE WORKFORCE YOU’VE NEVER HEARD OF IS GOING DIGITAL

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“The Largest Unpaid Healthcare Workforce you’ve Never Heard of Is Going Digital” explores the seemingly unnatural connection between caregiving and technology in an era of an aging, yet connected, population being cared for by an array of family members and healthcare workers.

With some estimates as high as 66 million, informal caregivers may be the largest healthcare workforce you’ve never heard of. According to the AARP seminal work on “Valuing the Invaluable” about 40 million family caregivers in the U.S. provided an estimated 37 billion hours of care to an adult with limitations in daily activities. The business model for paying caregivers today is complex but evolving. Chronic care among the U.S. population comprises a disproportionate share of total healthcare spending close to 86%. This chronic care market represents an opportunity to reduce healthcare spend.

A lot of the technology energy is coming from the constructs of the Affordable Care Act and the Centers for Medicare and Medicaid’s policies around value-based care, with reimbursement being tied to quality and outcomes. These objectives have a force multiplier effect on all stakeholders caring for a chronic patient, encouraging the adage of right care, right time and right place. The right combination of human touch and technology can make a meaningful difference.

Jonathan Rauch called caregivers “the invisible army” of our healthcare system. It is increasingly evident that those organizations that align themselves with the needs of caregivers will increase their chances of achieving quality measures at the lowest cost.

CALORIC RESTRICTION TO AUGMENT CANCER CARE: WHEN FOOD IS MEDICINAL

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From prospective studies such as the Nurses Health Initiative, it has been established that weight gain after breast cancer treatment is directly linked to worse cancer outcomes such as increased local recurrence and distant metastases, with decreased overall survival. Unfortunately, the women in the aging population are most at risk for weight gain in the first year after treatment. Recently, because of an increasing body of literature demonstrating that there is an altered metabolic component to both carcinogenesis and tumor progression, there has been growing interest in the potential role of diet as a treatment modality for age-related diseases such as cancer. In multiple preclinical breast cancer and prostate cancer models, our laboratory has shown that caloric restriction can be added to radiation to increase local control of the primary tumor and to decrease metastases while increasing overall survival. We noted the same effect for both primary tumors and metastases when caloric restriction is added to chemotherapy. Molecularly, caloric restriction decreases the expression of multiple members of the IGF-1R/Akt pathway. In addition, we have started the first in-human clinical trial using caloric restriction with radiation. We have had 91% patient compliance with the diet, improved serum markers, quality-of-life measures and even acute toxicity during radiation. The innovative use of caloric restriction as a novel therapeutic option has the potential to change the biology of aging related diseases such as cancer to enhance the opportunity for clinical benefit in the treatment of patients.