

Defining the 4 P's for Better Health Outcomes

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Introduction

It's not a secret that our health is in despair, with the chronic disease crisis and the obesity epidemic on the rise, yet the American Medicinal Association states that more than 98,000 annual deaths are preventable. It is evident that we need to take a more active role in our own health, and make healthy lifestyle changes that support the wellness of our whole being.

At the same time, however, we are dealing with a current healthcare system that is not supporting our endeavors to lead a life of wellness. The system isn't effective and at the same time, it is getting more and more expensive. Fortunately, that is all about to change now that P4 health and the CV4PTM approach has come onto the horizon.

What is the CV4P™ Approach?

In short, CV4P™ is what will turn around our healthcare system and help maintain optimal wellness. It is based on the four P's: <u>Predict</u>, <u>Prevent</u>, <u>Personalize</u>, <u>Participate</u>.

According to the <u>P4 Medicine Institute</u>, "The convergence of systems biology, the digital revolution and consumer-driven healthcare is transforming medicine from its current reactive mode, which is focused on treating disease, to a P4 Medicine model, which is medicine that is predictive, preventive, personalized and participatory."

Eric Topal, MD states, "With the personal montage of your DNA, your cell phone, your social network – aggregated with your lifelong health information and physiological and anatomic data – you are positioned to reboot the future of medicine. Who could possibly be more interested and

more vested in your data? For the first time, medicine is getting more democratized."

Leroy Hood, MD, PhD, President of the Institute for Systems Biology in Seattle, WA states that "In 10 years, each patient will be surrounded by a virtual cloud of data points, and we will have the tools to reduce the enormous data dimensionality into simple hypotheses about how to optimize wellness and avoid disease for each individual."

Benefits of the CV4P™ Approach

- Improves patient outcomes
- · Improves quality of care and quality of life
- Improves diagnostics and therapies
- Brings us more cost effective care
- Brings us more precise care
- Allows us to detect diseases earlier for easier and less expensive treatment
- Makes drugs more effective
- Reduces adverse drug reactions
- Reduces the cost of healthcare and drugs
- Empowers the patient and physician
- · Shifts our healthcare system from reactive to preventive
- Minimizes disease
- Optimizes wellness
- Reinvents primary care
- Gives individuals control over their health and wellness in a state-ofthe-art way

The Ideal CV4P™ Healthcare Model is One That Will:

- Collect actionable data from individuals
- Help patients utilize that data to predict and prevent disease with physician-prescribed diseases treatment plans
- Involve supportive providers, such as health coaches and alternative medicine practitioners to help the patient engage in the best lifestyle choices for them personally

P4 Health: The Change Our Healthcare System Needs

Healthcare challenges have never been so real, but it has never been so revolutionary either. A shift is taking place that is bringing health, wellness, science, technology, engineering and mathematics together to solve the challenges of global health. This shift is called P4 Health, otherwise known as P4 Medicine, and it will literally revolutionize the healthcare industry, pharmaceuticals, biotechnology, diagnostics, healthcare technology, health insurance, therapy, prevention, wellness, nutrition, assessments of environmental toxicities, and academia and medical schools.

The CV4P[™] approach outlines the 4 keys to health, which each start with the letter "P." When the four keys of Prediction, Prevention, Personalization and Participation exist, healthcare competency is elevated, healthcare costs come down, and our healthcare system moves from reactive to preventive.

Prediction

Being able to predict disease provides a huge advantage as we begin to adopt that knowledge to make informed decisions that lead to prevention.

This is all becoming possible with genomics, proteomics and other "omics," which are all transforming diagnostic and therapeutic strategies.

By analyzing an individual's genetic makeup and family history, a prediction can be made as to whether or not that person is likely to get a disease, and this can happen well before any symptoms occur, allowing the individual and his or her physician(s) to make informed decisions.

Knowing your risk of certain diseases can help you prevent their onset and/or better manage the disease from an earlier stage. Genetic testing also gives you the advantage of being able to predict how you would respond to certain drugs so that you can take the one that will be most effective for you right off the bat.

The <u>P4 Medicine Institute</u> states that "On average, humans differ from one another by about 6 million nucleotides in their genomes," and according to Bob Carlson in a <u>Biotechnology Healthcare article</u>, "25,000 genes make up the human genome, and each gene may not be fully expressed. Additionally, multiple genes share multiple responsibilities, and each gene encodes multiple proteins, all of which interact in complex ways."

This goes to show you that with bodies as complex as ours, its no wonder that different diseases and drugs for those diseases affect people differently. Each person is genetically unique and basing our medicinal practices on averages and statistics is simply not effective.

Biologists are finding that certain proteins in the blood, known as protein signatures, as well as whole-genome sequences are present in organ networks well before any symptoms of a disease occur. This is the future of predictive and preventative medicine.

P4 Health is data driven, utilizing billions of patient data points, from which scientists are able to create predictive models that will take healthcare to new heights. It puts each person as their own control for disease assessment, instead of relying on the data of studies.

This is made possible with the digital information derived from genomics, which is the study of the genome and the role they play in biology and disease, as well as the environmental information that modifies that genetic information. It's biology and technology working together to create diagnostics that allow for early detection and preventive strategies.

Prevention

Prevention is the key to health. If you can prevent disease, you can live in a state of optimal wellness, and then health just becomes maintaining the healthy lifestyle choices that led to that wellness in the first place. By being proactive with your health, you can actually create your optimal health.

Preventing disease starts with the first P in CV4P™, which is "Predict." As new science gets better and better, we can predict the diseases we are most likely to get based on our genetic makeup and family history, and then we can use informed prevention methods to choose a wellness plan of lifestyle choices and treatments that are customized to our unique DNA.

As the CV4PTM approach develops, the use of preventative drugs will come into play, allowing us to push diseased genes back to normal before symptoms even occur. Future medicine is starting now!

Through genomics and systems approaches, preventive drugs and new vaccines will surpass current options. With the power to predict disease, we are then able to prevent disease at the earliest stages.

Personalization

CV4P™ is personalized health. It is generating a paradigm shift from evidence-based clinical studies to personalized medicine that is predictive and preventive.

CV4P™ allows you to first Predict and then Prevent any diseases you are likely to get, but it's not a cookie-cutter method. It's all based on your unique genetic makeup – it's personalized to you, and that's powerful.

This personalized medicine allows you to know what diseases you are likely to get and what drugs will work best for you. It allows you and your physician(s) to work together to create a personalized wellness plan that isn't based on the results of others but on what will work best for your individual case.

With predictive medicine, your individualized health profile sets you as the control in establishing your optimal wellness baseline, instead of relying on population-based disease diagnosis.

With each person acting as the control in what is essentially their own individual study, the information generated from their personal DNA will lead the way to predictions and care that is based on their unique genetic makeup. In this way, they can focus on preventing the specific diseases they are more likely to get and they can integrate the treatments that will work for them as an individual.

Participation

Our current healthcare system has created passive patients who simply act on the advice of their physicians. CV4PTM will shatter that method by empowering individuals to take control of their health. CV4PTM is driven by the participation of these individuals who take ownership of their health as they discover they are able to maintain their wellness based on informed personalized wellness plans.

As patients participate in the CV4PTM approach, they will begin to create an invaluable database of unique, personal health data for themselves using new technology that will provide them with information that pertains to them individually. This will allow them to take action to improve their health in a more effective way than has ever been possible before.

At the same time, the data being compiled on each person will work together to collectively assist scientists in better understanding diseases so that they can create the drugs and treatments to prevent those diseases in the first place. The data sets collected will be the basis for our future healthcare system, one that is based on staying well.

Patient-driven networks like <u>CarpeVITA Health Networks</u> will make active patient participation easy and convenient. Individuals will be able to work together with their physician(s) to engage in personalized wellness plans, while utilizing technologies that allow them to maintain wellness and intervene with diseases pre-symptomatically. These technologies and tools will empower them to make the right healthy lifestyle choices and to share their progress with those they trust.

Patients will be able to participate in their own health in new ways, and it will be necessary for them to do so for P4 Health to work. Technology and tools will be provided to empower patients to take a more active role in optimizing their state of wellness.

Digitalization Transformation

The digitalization of biology and medicine are making P4 Health possible, and Lee Hood from the Institute for Systems Biology in Seattle, WA, states that it will "transform medicine even more than digitalization transformed info technologies and communications." This is because it is making it possible to analyze single molecules, single cells, single organs and single individuals. Digitalization will also serve to lower healthcare costs.

The Digital Revolution powers each aspect of the CV4P™ approach. It is opening up better monitoring and analyzing methods. New technologies are being created to handle, digitize, share and assess individual big data sets. Advances are being made to automate and drive engagement between patients and their physicians. Patient-activated social networks

and personal digital devices are bringing this technology full circle, putting the patient in control.

The Role of Genomics in P4 Health

Genomics is the science that is leading this personalized health transformation. It allows scientists to evaluate an individual's DNA to make predictions based on diseases the individual is genetically predisposed to and the treatments and medications that are likely to work best for the individual. A <u>CarpeVITA GenoTest</u> can be taken with a simple saliva sample, and then individuals can work together with their health provider(s) to create a more effective, customized plan of care.

Environmental & Lifestyle Factors

It is important to point out that personalized medicine does not take into account environmental and lifestyle factors that could lead a person to develop a disease, and that if a genomics test finds that you are not genetically predisposed to a disease, it does not mean that you won't get the disease due to environmental and/or lifestyle factors.

For this reason, it is important to engage in healthy lifestyle habits, refrain from unhealthy lifestyle habits and avoid unhealthy environmental factors. With the help of your physician, consider taking herbal supplements to support the body's natural ability to heal itself. Eat a healthy diet, get consistent exercise, don't smoke, reduce the stress in your life, and give your body the sleep it needs to rejuvenate each night.

Personalized medicine approaches are already available, and through the CV4P™ model, CarpeVITA is one of the leaders of this P4 Health approach.

Take Control of Your Life the CV4P™ Way

With personalized medicine, the focus is on prevention and wellness. By understanding your risk areas, you can change your lifestyle habits to help prevent those diseases from occurring. It's healthcare designed specifically for you!

By adopting the concept of P4 Health and the CV4P™ model for yourself, you'll center your health and wellness around Prediction, Prevention, Personalization and Participation. It's time to Carpe Vita, which means "Take Control of Your Life!

About CarpeVITA, Inc.

CarpeVITA, Inc. is setting the standard for healthcare outcomes by providing services that encourage prediction, prevention, personalization and participation.

Our CV4P™ Approach

CV4P™ provides the bridge every health care professional and patient needs to Predict, Prevent, Personalize and Participate in their health. It provides individuals with a customized roadmap to optimal wellness.

CV4P™ is about helping people reach and maintain wellness to improve population health and individuals, families, companies, communities and healthcare providers on the right track.

CarpeVITA Health Networks

A CarpeVITA Health Network is an integrated medical network that facilitates our CV4PTM approach to health and wellness. In a CV Health Network, the fragmented parts of the current healthcare system become coordinated, procedure-oriented care becomes outcome oriented,

reactive care becomes proactive care, and provider-payer conflicts become alignments. Patients, Physicians, Healthcare Systems and Complementary Providers all benefit from using the CV Health Network model.

Contact Us Today to See What We Can Do For You!

Call Toll Free: 844-P4CARPE www.CarpeVITAinc.com

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