

WHY DO HOSPITALS HAVE
TO BE SO DAMNED
DREARY..?!

vision of the future
HEALTHCARE

CHINA | 2020

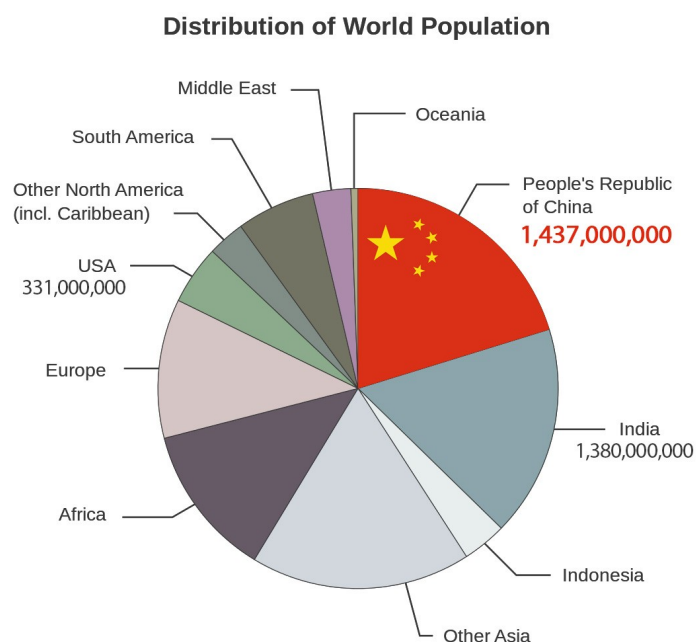
The time is... NOW!

The population of China totals 1,437,000,000 people.

That's 20% of the planet! Healthcare which affects all people is still slowly evolving. Even before Covid-19 it was clear that healthcare systems in China needed improvement. Now, it is a priority. Some changes in China can be very fast, while others can be very slow.

China Healthcare Challenges:

1. Aging population & over-crowding of out-dated facilities
2. New doctor training & education
3. Public education of health, sanitation, & food safety
4. Poverty & Inequality



There are simply not enough doctors and facilities for the overwhelming population.

Just imagine what the situation is like now with the Covid-19 epidemic! It's clear that one major opportunity in the face of this terrible crisis will be the improvement and expansion of healthcare facilities.

What if China mass produced hospitals the way that they produce smart-phones?

China has developed tremendously in the past 20 years, and many fantastic developments have captured the world's attention. China still has many foundational issues that it needs to address: health, sanitation, and food

safety are of major concern.



These issues are inextricably linked to others such as poverty, hunger, and education. In China, 2010 was a decade full of excitement, glitz, and glamour. It's time to turn attention away from whimsies of the past, to the realities of today.

Better design solutions are needed to address these problems.

Permanent Modular Construction will be essential in the expansion of affordable healthcare facilities throughout mainland China. Permanent Modular Construction (PMC) will help streamline this large-scale facilities expansion process. PMC facilities can be built to higher quality standards with the future in mind. Through mass

production, in factory controlled environments, PMC facilities are able to deliver higher quality at much lower costs.

Envision a hospital room suite of the future, mass produced with the same quality standards as a smart-phone.



Let's bring more sunshine, life, and humanity to the hospital environment.

PMC facilities are affordable, but they don't have to be so dreary. They can be permanent beautifully designed facilities. Below is a concept rendering from DDI.



In addition to creating more beautiful hospital facilities, we see 4 major areas for the improvement of China Healthcare via new design & development.

- 1. *eHealth systems will expand capacity*
- 2. *modernize design standards*
- 3. *restore dignity & humanity to the sick*
- 4. *mass produce quality long lasting facilities*

1. eHealth can expand healthcare systems with a limitless capacity

eHealth will merge with existing healthcare channels to help expand care to patients. Doctors will be further enabled with technology. The foundations of eHealth began with the emergence of the internet in 1998 with health websites like WebMD. eHealth is an emerging field in the intersection of medical informatics, public-health, and education. However it is not intended as a replacement for a doctor, merely an extension.

Expect online knowledge databases to intelligently merge with patient data to enhance healthcare delivery. Imagine a computer system that predictively diagnoses illnesses based on fluctuations in real-time biometric data: heart rate, blood pressure, blood chemistry, body temperature, sleep routine, movement, and activity. All can be integrated with your patient history, doctor instructions, and personal searches.

1		Solving ACCESS challenges
2		Enhancing healthcare DELIVERY
3		Offering online DISTRIBUTION options
4		Transforming physician & patient COMMUNITIES
5		Empowering PERSONAL healthcare

According to research firm McKinsey:
"eHealth has started to shape China's healthcare landscape on 5 dimensions."

2. Implement modernized healthcare design standards

Modern design standards for healthcare are evolving, and the future is brighter than before. Future hospitals can act as Intensive-Care facilities for all patients, 24/7, throughout. Care and treatment will permeate patient lives beyond the hospital into the home as well.

Innovative materials and technologies will combine to create **passively sanitary environments**, with anti-microbial surfaces & UV disinfecting HVAC systems.

Patient comfort will be improved. Expect more hotel hospitality features. Heated floors and bio-rhythmic lighting can be included. Consider a hospital corridor overlooking a dramatic atrium drenched in natural sunlight and with visibility across multiple floors. Let's not forget to make hospitals human.



3. Include facilities designed to restore the dignity and humanity of the sick.

How can a hospital merely treat patients, without also helping them age with dignity and grace? Why are hospitals typically so cold and inhumane? Let's design

hospitals to be warm and welcoming places. Hospitals can include south facing windows over looking bamboo forests full of life. Hospital facilities must also nurture the spirit. Include both activity areas for patients and visitors. Visitor waiting rooms should accommodate over-night stays. Let's include more warmth, sunlight, and places to be together with family in privacy.

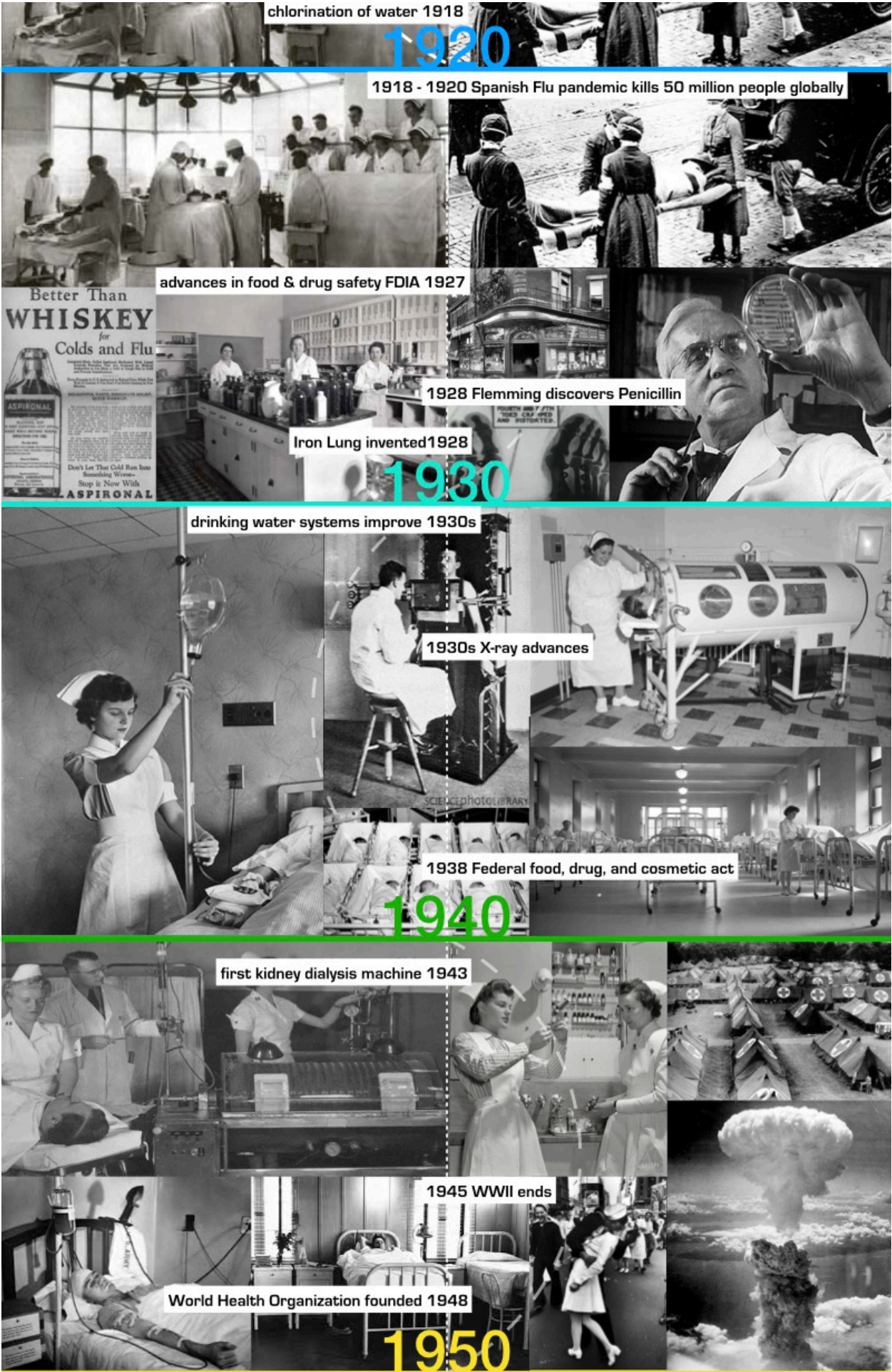


4. Modularize, mass-produce, and construct quality long lasting facilities

Let's modularize it, mass produce it, and build it to last PERMANENTLY. Too often we see cheap new construction NOT built to last. This generates tremendous waste and is a misuse of resources. We can do better. Let's continue to study how can design and architecture improve society. New facilities we produce can address these basic problems.

So, what's next? First, some background on the history & importance of healthcare...

Below is a timeline of the last century. By the year 1920 the Spanish Flu pandemic would kill 50 million people globally. It was a terrible time. The 1920's would end with the arrival of the Great Depression of 1929.



The 1950s and 1960s would see much needed medical advancements. Antibiotics were now commonplace. Polio was still a major issue. Many healthcare & technological innovations had come about from 1940s mobilization efforts.



1980

1980s Fitness culture

HIV identified 1981

1984 Lamb cloned

1988 Global Effort to eradicate Polio

1990

ADA Americans with Disabilities Act 1990

1993 E.coli outbreak at US restaurant

1995 - 1996 Food safety measures implemented in US

WebMD goes online 1998

2000

The Human Genome Project

2002 SARS

Human Genome Project Completed 2003

2009 H1N1

2010 Prescription drug costs rise

2010

2010 Shanghai World Expo



The last century has seen a tremendous amount of development, and the future looks brighter than ever! Average life expectancy has extended 25 years from 1920 levels. Overall quality of life has improved including; *better nutrition, sanitation, and healthcare*. We've eradicated smallpox and sequenced the human genome.

The future beyond 2020 holds even greater technology to help us improve one of the simplest and most valuable of things, **OUR HEALTH.**

"Health is the greatest gift, contentment the greatest wealth, and faithfulness the best relationship." Buddha

There are already plans in the works to deliver improved healthcare facilities for China by as early as 2025. China is not so far behind. We suggest taking a closer look at Permanent Modular Construction as an affordable high-tech solution for the **future**. Now is the best time to confront these issues. **The time is... NOW!**

#Healthcare #2020