



VINMEC HEALTHCARE SYSTEM INTRODUCTION

November, 2023



AGENDA

1. Session 1: Vietnam Healthcare market

- Vietnam's healthcare landscape
- Vietnam's aging population

2. Session 2: Vinmec Healthcare system

- Vision – Mission – Core values
- Operating model
- Key milestones and achievements
- Research achievements
- International partnerships
- Objectives 2022 – 2026
- Potential collaborations





VIETNAM HEALTHCARE MARKET

1

Vietnam's healthcare landscape



**75.3
years**

Life expectancy of Vietnam's population in 2018 - an increase of 15 years over the past 50 years



**7.2%
population**

Proportion of people aged 65 years and older in 2018 leading to high demand for care



**77%
total death**

Caused by non-communicable diseases (NCDs) – increasing mortality and morbidity burden of NCDs



**US\$
2,502**

Annual income per capita – grew at 8.6% per year over 2015-2018



**26% of the
population**

Proportion of the population expected to reach middle class by 2026 according to the World Bank



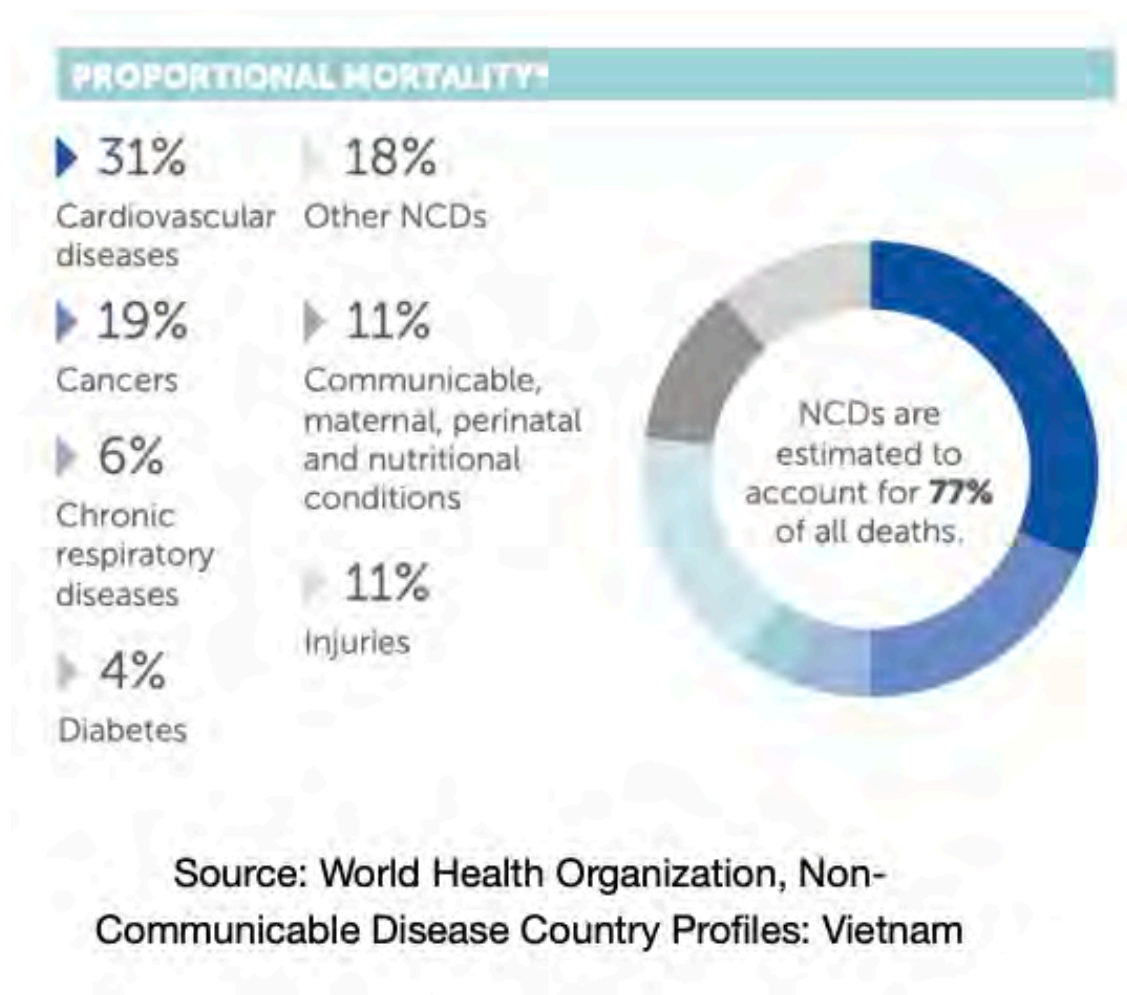
**35.9%
population**

Urbanization rate – forecasted by the Vietnamese government to reach 50% by 2030

Vietnam's healthcare landscape

Disease burden (Source: Ministry of Health)

Disease prevalence group by ICD10 chapter	(%)
Certain infectious and parasitic diseases	6,6
Neoplasms	3,6
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	0,69
Endocrine, nutritional and metabolic diseases	2,81
Mental and behavioral disorders	1,42
Diseases of the nervous system	2,93
Diseases of the eye and adnexa	2,28
Diseases of the ear and mastoid process	2,56
Diseases of the circulatory system	10,32
Diseases of the respiratory system	14,57
Diseases of the digestive system	10,29
Diseases of the skin and subcutaneous tissue	1,72
Diseases of the musculoskeletal system and connective tissue	6,38
Diseases of the genitourinary system	5,84
Pregnancy, childbirth and the puerperium	7,81
Certain conditions originating in the perinatal period	1,98
Congenital malformations, deformations and chromosomal abnormalities	0,88
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	3,6
Injury, poisoning and certain other consequences of external causes	9,98

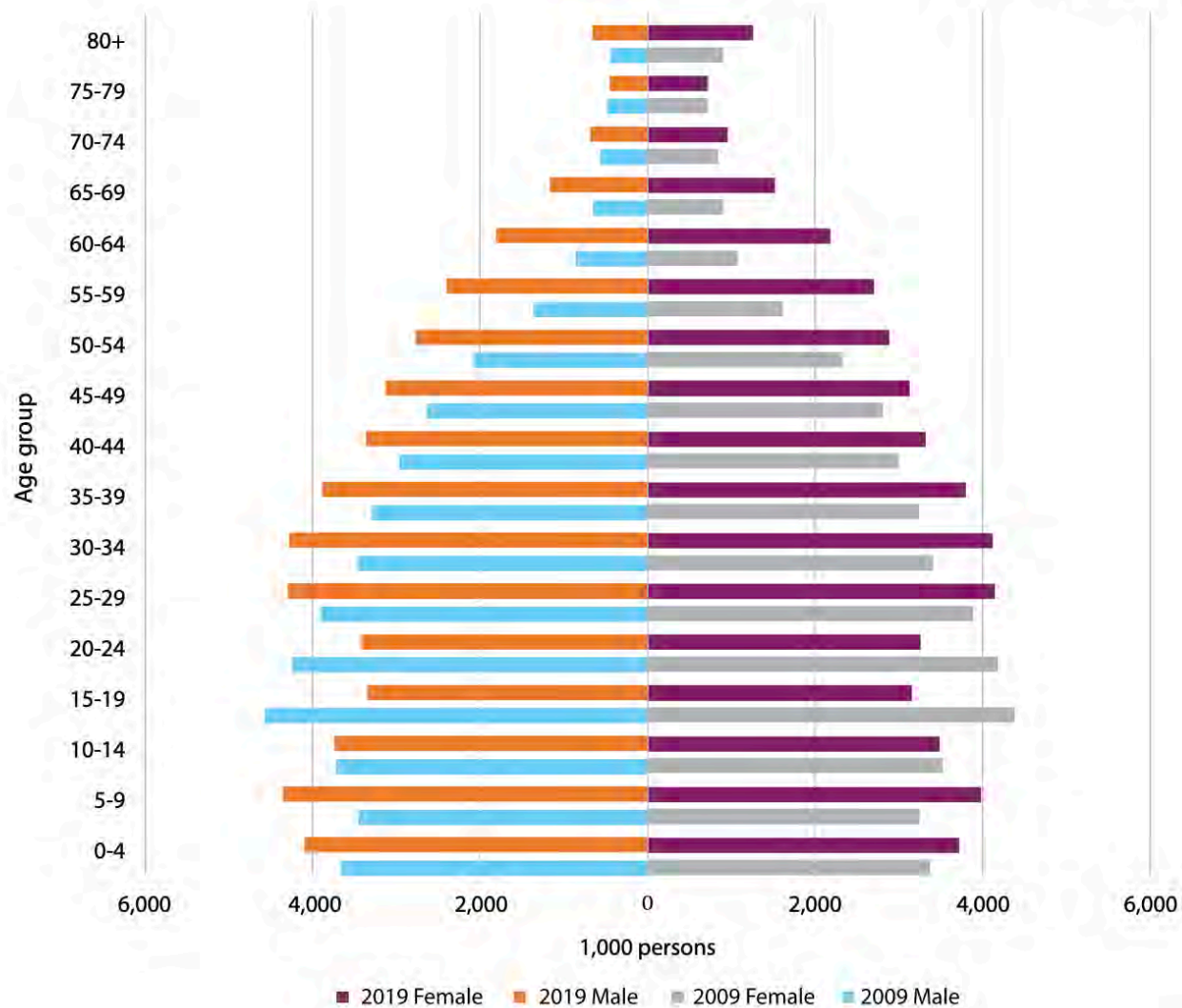


Vietnam's aging population

Health condition

Figure 1. Viet Nam population pyramids in 2009 and 2019

Unit: 1,000 persons



Main disease patterns among the elderly are non-communicable diseases



Cardiovascular
37,6%



Hypertension
52,6%



MSK
37,6%

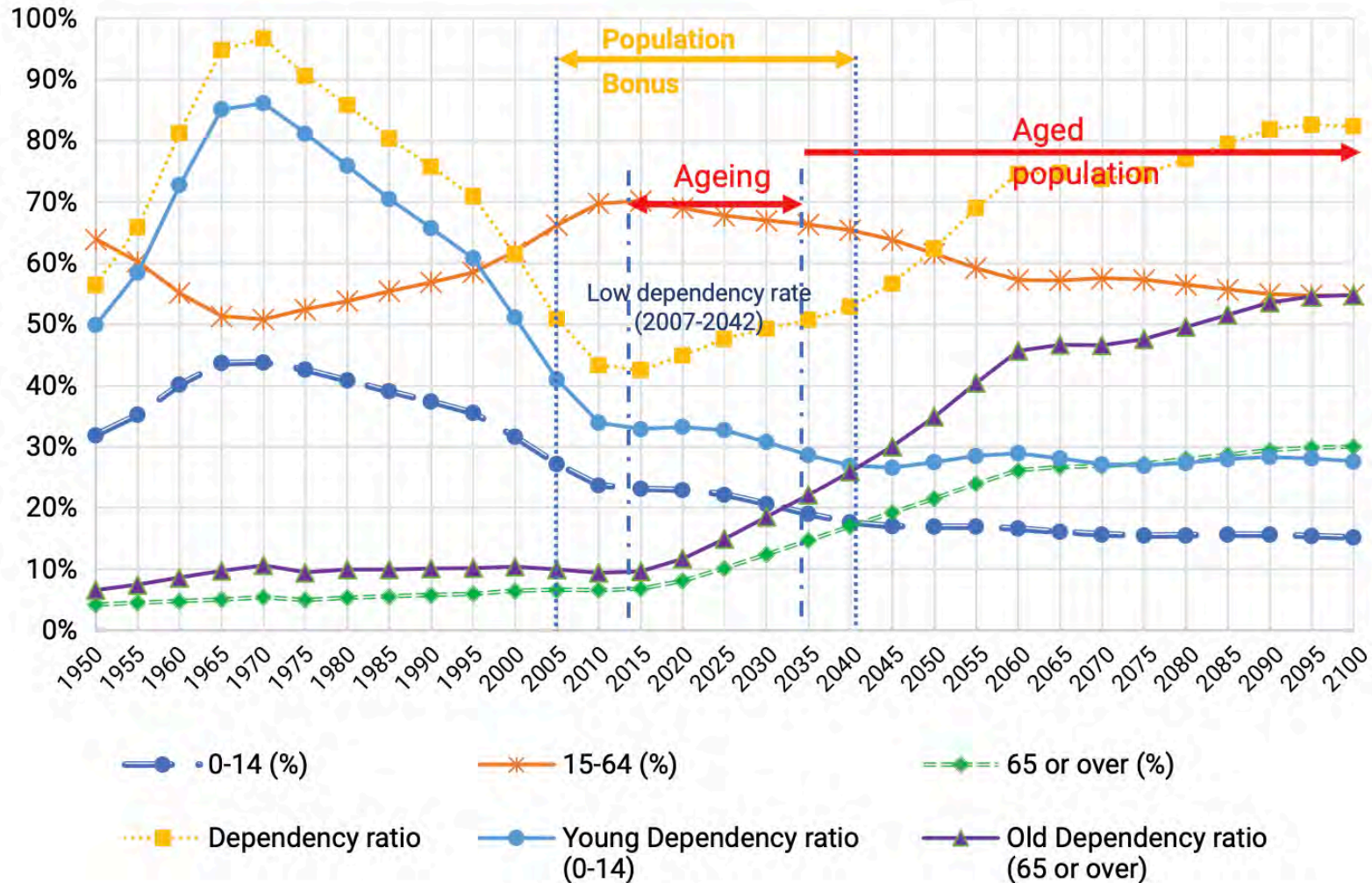
During the decade from 2009 to 2019, the average annual population growth rate was 1.14%, while the growth rate of the elderly segment was significantly higher, at 4.35% per annum.

(*) elderly: 60 years old and above

Vietnam's aging population

Health condition

Figure 1.1. Vietnam: Demographic Projections, 1950-2100*



- Vietnam's elderly population increased at a much faster rate than the other demographic groups, albeit from a low base.

- The TFR fell below the fertility replacement level in 2006 and has continued to fall.

-> By 2049, the number of older persons will increase to 19.6 million and will account for approximately 18.1 percent of the population, turning Vietnam into one of the fastest-aging countries in the world.

Vietnam's labor force is projected to contract by almost one percent per annum over the next 3 decades.



VINMEC HEALTHCARE SYSTEM

2

Vinmec Healthcare System

VISION–MISSION–COREVALUES

Vinmec is a healthcare system invested and developed by Vingroup – Vietnam's leading private economic group with:

1. VISION Vinmec is dedicated to an academic healthcare for people at local and global scales through innovative research and breakthrough that lead to clinical excellence and value-based care solutions

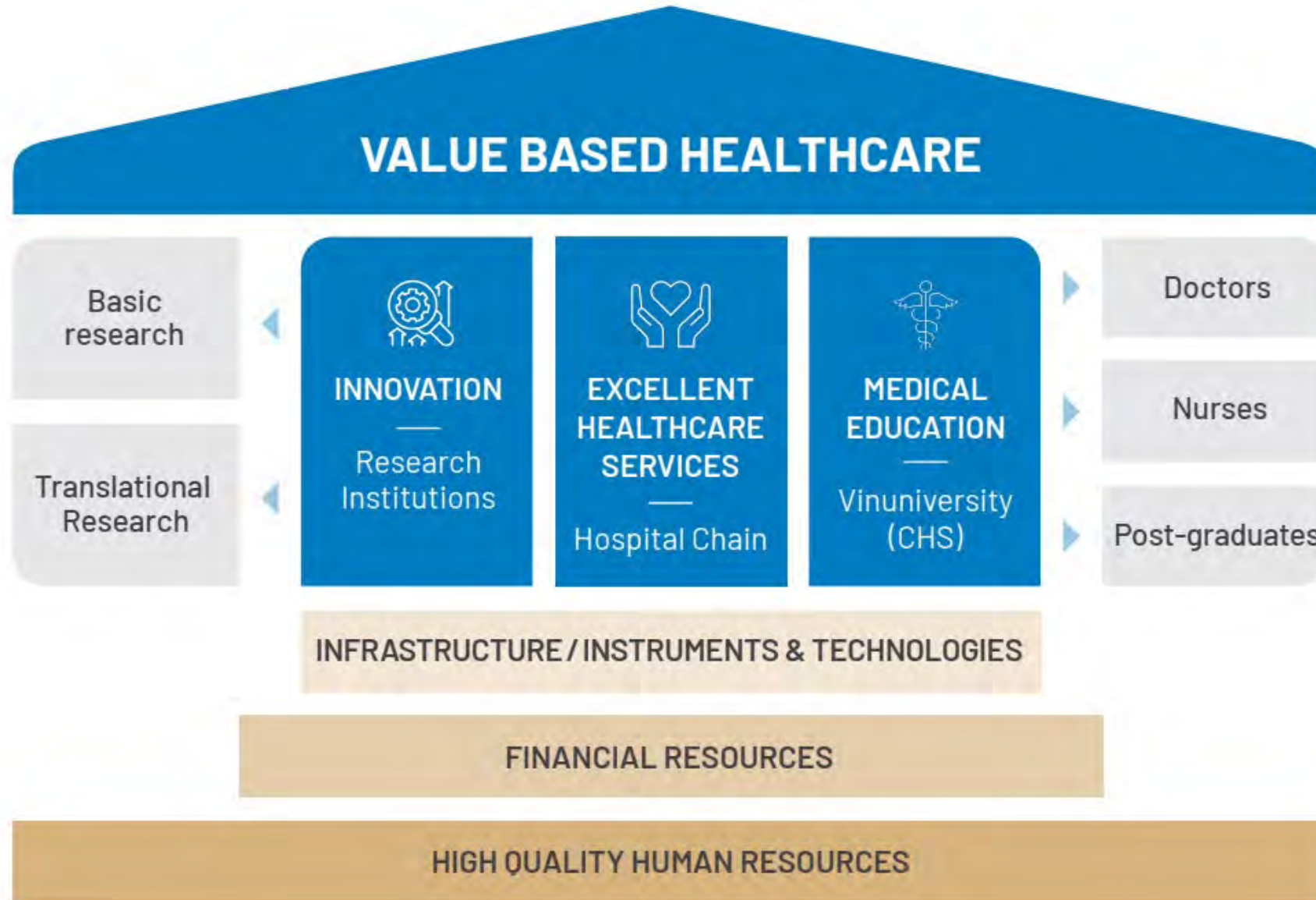
2. MISSION **Care with Compassion, Professional and Wisdom**

3. CORE VALUES **4 letters: C – A – R – E with following meanings:**

- **Creativity** – Continuous innovation to offer patients the best solutions..
- **Accountability** – Highest accountability to patients and their families by virtue of our care ethics, skills, knowledge, and professional standards..
- **Reliability** – Commitment to doing the best for patients and being the most reliable provider to the community
- **Excellence** – Pursuit of highest service quality and best healthcare process

Vinmec Healthcare System

OPERATING MODEL



Vinmec Healthcare System

KEY MILESTONES & ACHIEVEMENTS

7
International hospitals






4
International clinics

1
Center of Applied sciences, Regenerative medicine and Advance technologies (CARA)

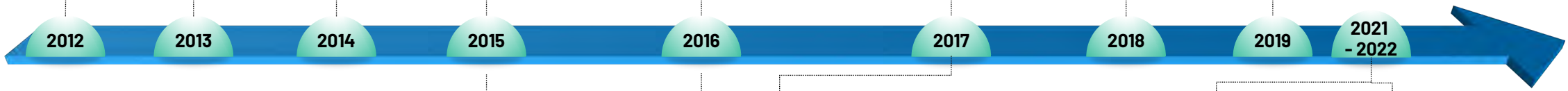
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Stem cell and gene research institution

~2,500
Medical staff

~1,500
Hospital beds capacity

Type	 General hospitals	 Clinics	 Research Centers & other Advanced Health Services
Average size / # beds	 150 - 500 beds	 500 - 1,200 sqm	N/A

<ul style="list-style-type: none"> Vinmec Times City International Hospital 	<ul style="list-style-type: none"> Vinmec Royal City International Clinic 	<ul style="list-style-type: none"> Gene Technology and Stem Cells Center Assisted Reproductive Technology Center Vinmec Sai Gon International Clinic 	<ul style="list-style-type: none"> Vinmec Phu Quoc International Hospital Vinmec Central Park International Hospital 	<ul style="list-style-type: none"> Vinmec Nha Trang International Hospital Vinmec Ha Long International Hospital Vinmec Research Institute of Stem Cell and Gene Technology 	<ul style="list-style-type: none"> Vinmec Da Nang International Hospital 	<ul style="list-style-type: none"> Vinmec Hai Phong International Hospital 	<ul style="list-style-type: none"> Vinmec Times City International Clinic 	<p>7 hospitals are up-running from 2023 to 2026</p> <ul style="list-style-type: none"> Vinmec Smart city (2024) Vinmec Can Tho (2024) Vinmec Ocean Park (2025) Vinmec Empire (projected) Vinmec Ha Tinh (projected) Vinmec Grand Park (projected) Vinmec My Lam & Nursery home (2025)
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2012
Vinmec Times City 1st accredited by JCI

2013
The "Vietnam's Most Improved Local Hospital" accreditation by "Asia Hospital Management Association"

2014
Vinmec Central Park 1st accredited by JCI
Vinmec Central Park becomes the only independent TAVI Center in Southeast Asia.

2015
Vinmec Times City 2nd accredited by JCI

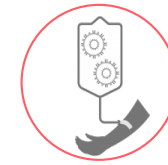
2016
Vinmec Times City 3rd and Vinmec Central Park 2nd accredited by JCI

2017-2022
Governance: Best Managed Company - Deloitte
Cardiology: ACC
IVF: RTAC
Lab: CAP
Biobank: AABB

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RESEARCH ACHIEVEMENTS

Fields	In Vietnam
Stem cell therapies Diverse diseases	#1
Autologous immune enhancement therapy (AIET) The first and only organization	#1
mRNA COVID-19 vaccine Largest trial in Vietnam (20K)	#1
Biobanking The first private tissue biobank in Vietnam	#1
3D printing in clinical applications Orthopedic application	#1
Cancer screening (VINCAPR) Largest epidemiological study in VN (100K)	#1



2
Novel therapies
AIET + ESP



> 250
Publications
PNAS, JEM, J Transl Med, JEV...



45
Research projects



5
4 patents








> 15
R&D projects
> 20 novel services



2
International awards
Nikkei - top 100 Asian scientists

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INTERNATIONAL PARTNERSHIPS

AREA	PARTNER
Hospital-wise (Vinmec Times City) 	Cleveland Clinics (<i>Connected membership</i>)
Preventive Medicine (Vinmec Times City) 	SNUH (<i>Premium Health-check Center</i>)
COE of Cardiology (Vinmec Times City) 	Cleveland Clinics
COE of Orthopedic & Sport Medicine (Vinmec Times City) 	Osaka University
COE of Immunology (Vinmec Times City) 	Pennsylvania State University
COE of Oncology (Vinmec Times City & Vinmec Central Park) 	University of Pennsylvania ICON Group (Australia)

Vinmec Healthcare System

HUMAN RESOURCES

College of Health Sciences

3 programs started in 2020:

- Medical Doctor (MD) – 6-years undergrad curriculum
- Bachelor of Nursing – 4-years curriculum
- Residency Doctor (Internal Medicine, Surgery, Pediatrics, Orthopedics)



VinUni Advanced Medical Simulation Center

- Cutting edge facility and technology
- Certified American Heart Association's international training center

VINUNIVERSITY College of Health Sciences



Vinmec healthcare system as affiliated teaching hospital and career path opportunities for CHS graduates



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OBJECTIVES 2022 - 2026

Clinical Programs

- Role model in **Preventive Medicine and Health Management** in Vietnam.
- **CoEs** (Cardiology, Oncology, Orthopedics & Sports medicine, Clinical allergy & Immunology)

Excellent Clinical Management

- Value based management / Disease Management (IPUs).
- Clinical Operation Excellency.
- Quintessence of human resource

Growth

- ~ **30%/ year**



Branding

- Medical examination results and treatment effectiveness
- Customer Experience
- International Collaboration

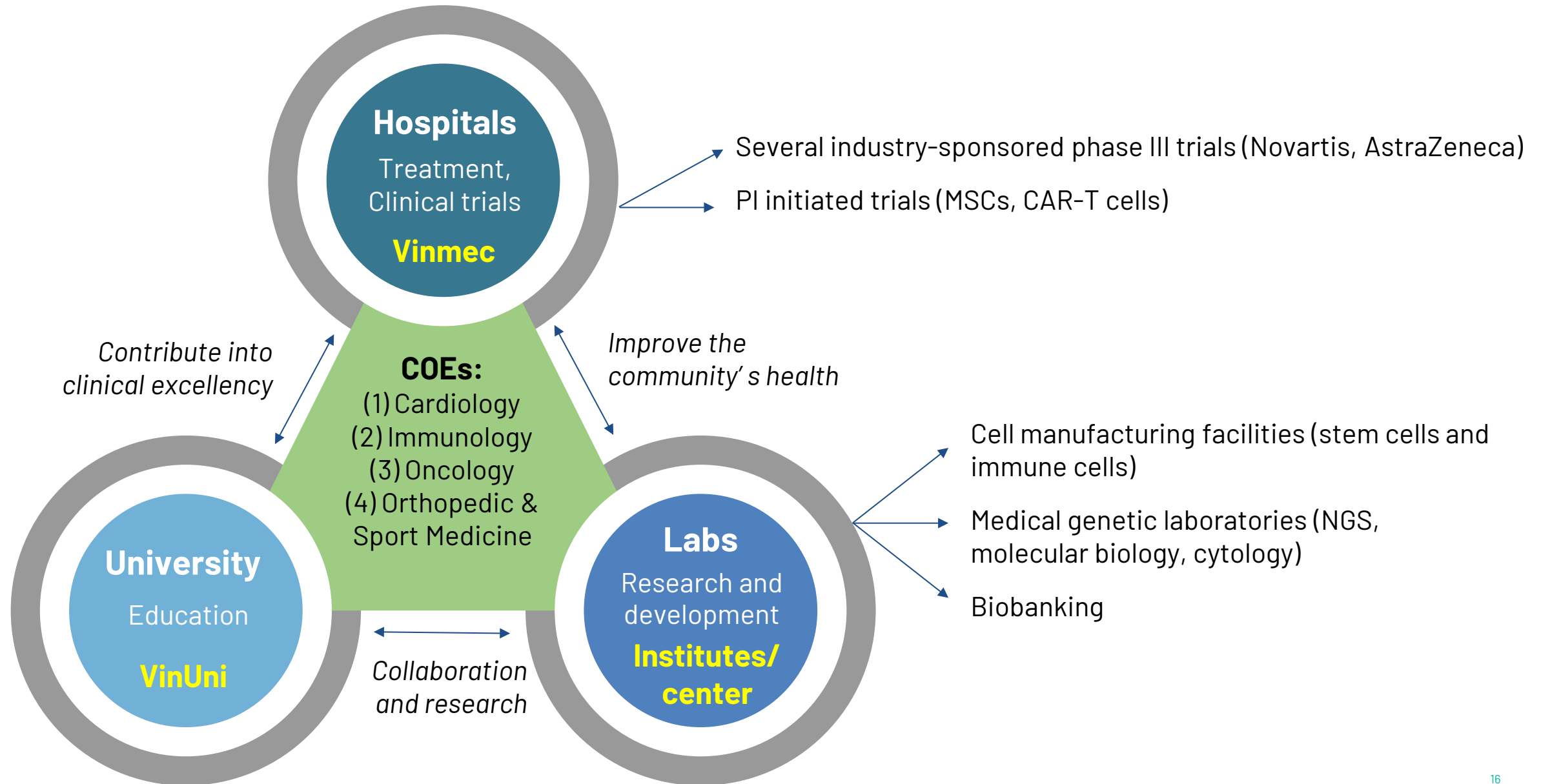
Research

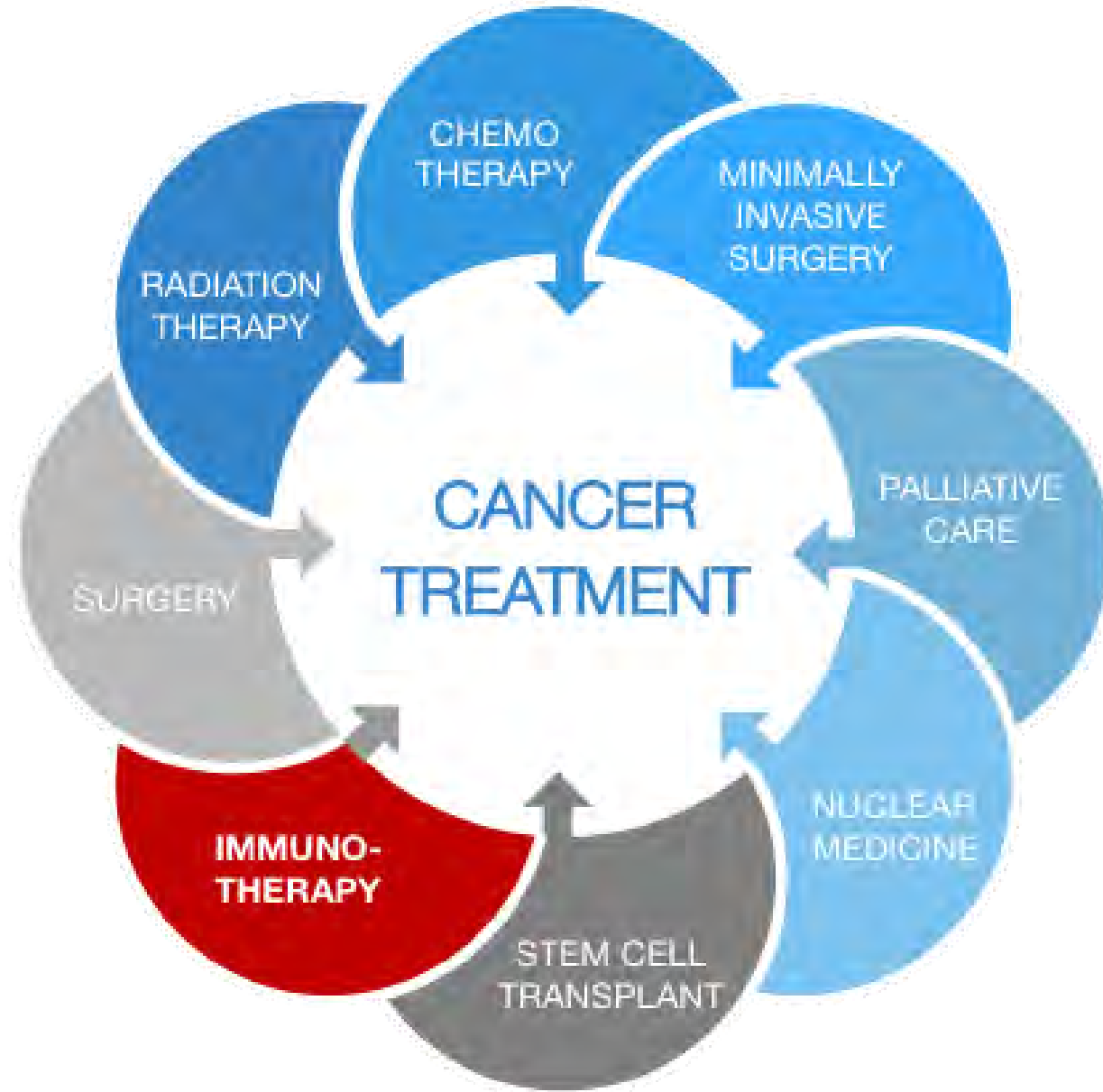
- Stem cell
- Immune cell, clinical immunology,

Smart Hospital

Vinmec Healthcare System

OBJECTIVES 2022 - 2026 | CLINICAL PROGRAM



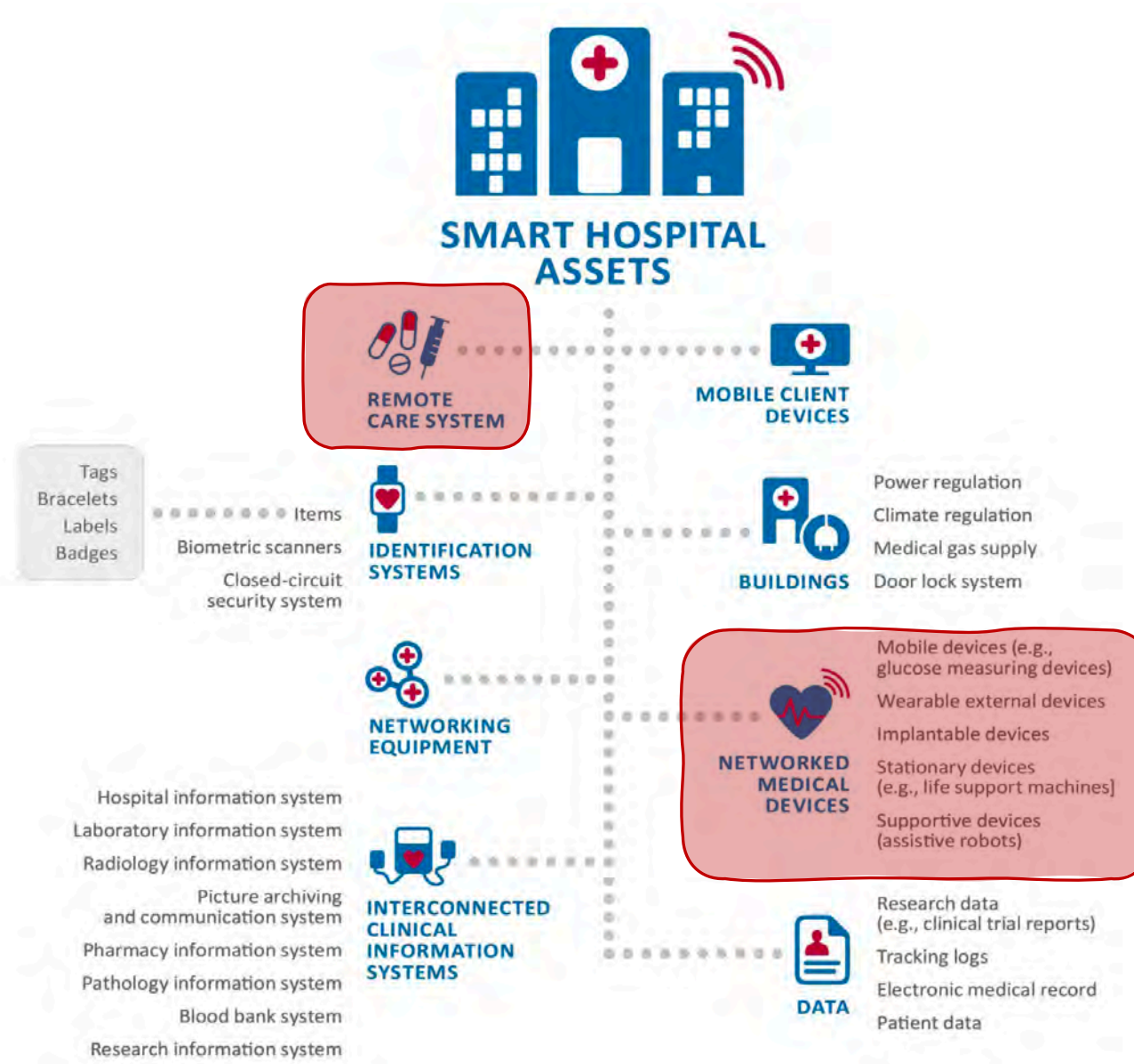


Simultaneously developing multimodality treatment for:

- **CARDIOVASCULAR DISORDERS**
- **MUSCULOSKELETAL DISORDERS**
- **ELDERLY CARE**

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OBJECTIVES 2022 - 2026 | SMART HOSPITAL





Cell therapies

Immune cell therapies for cancer (CAR-T and NK cells, TILs)
Stem cell and stem cell-derived extracellular vesicle applications

Diagnostic and prognostic

NGS-based technologies
Microbiome

Technologies transfer – Continuous medical education

Cancer, cardiology, and regenerative medicine-based novel technologies

Clinical trials

Novel drugs/medical devices

New services / business model







Nursery homes, senior / retirement village

IT solutions support continuity of care

Telemedicine, home care

Vinmec Healthcare System

POTENTIAL COLLABORATION MODELS

Models	Model 1		Model 2		Model 3	
	 Vinmec	 Partner	 Vinmec	 Partner	 Vinmec	 Partner
Contributions						
Hospital space, infrastructure	✓		✓		✓	
Facilities		✓	✓		✓	
Clinical personnel (doctors, nurses, etc.)		✓		✓	✓	
Operational expenses		✓	✓		✓	
Clinical consultation and branding				✓		✓

Thank
you