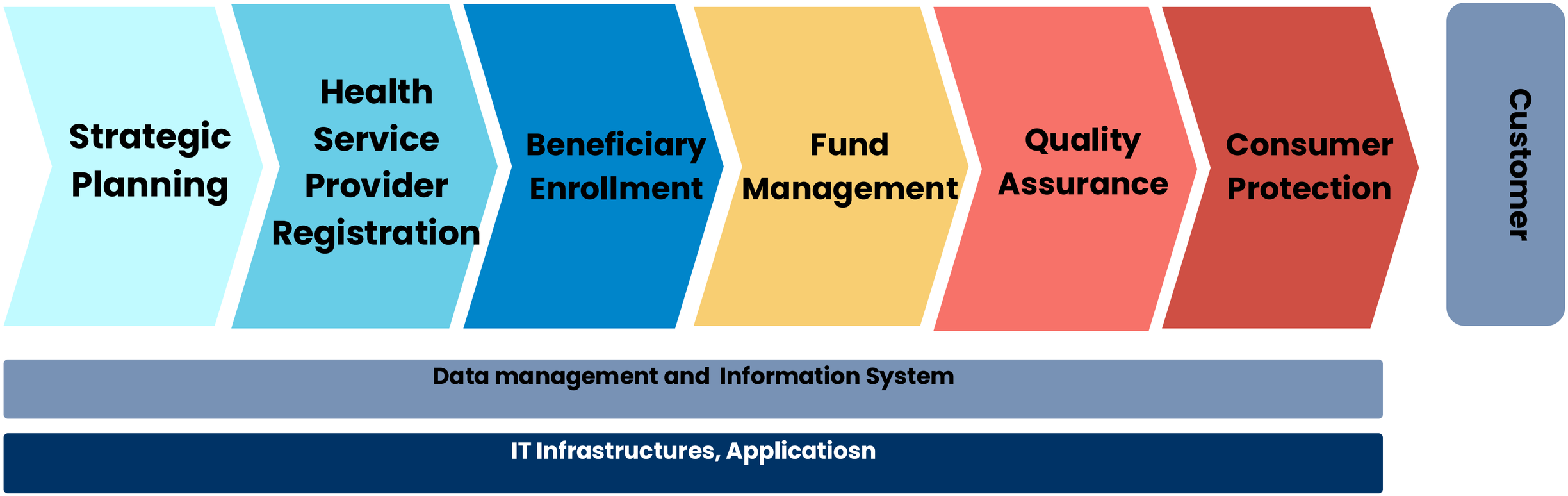
Your Face, Your Health ID: Digital Innovation Driving UHC Access

Mr.Noppon Maleesuwannachai
National Health Security Office (NHSO), Thailand

ABOUT THE NATIONAL HEALTH SECURITY OFFICE

NHSO
National Health Security Office

Founded in **2002** under the **National Health Security Act** as a public organization governed by the National Health Security Board. Our mission is to **manage the National Health Security Fund** efficiently and transparently, and to develop a quality health service system that ensures **equitable access for all Thais**.



UCS INFORMATION SYSTEM: TRANSITIONING FROM A PAPER-BASED TO A FULLY DIGITAL

2001-2002: Paper-based Systems

- Paper “Gold Cards” for beneficiary identification
- Manual data and claim recording
- Paper-based transaction and reimbursement process

2008-2009: Digital Transition &National ID Integration

- Introduced electronic data entry (offline/online)
- Linked UCS with Civil Registration database
- Use of National ID instead of Gold Cards.

2015: Unified Beneficiary Registration Center

- Integrated 3 public health insurance databases to prevent duplication
- Enabled automatic newborn registration and enrollment

2021–2027: Toward a Fully Digital Society

- Multi-channel verification
- AI-assisted pre-audit and seamless e-Claim
- Facial recognition pilot for secure access
- Real-time data exchange and AI-driven analytics

Payment for Provider	Payment process took 6–9 months	→	Within the agreed payment cycle
Beneficiries	Inconvenient, fragmented, and unequal access	→	Inclusive and real-time eligibility verification
Fund managenment	Duplication, delays, and data errors	→	Driving efficiency, accuracy, and transparency through real-time data.

CURRENT IDENTITY VERIFICATION

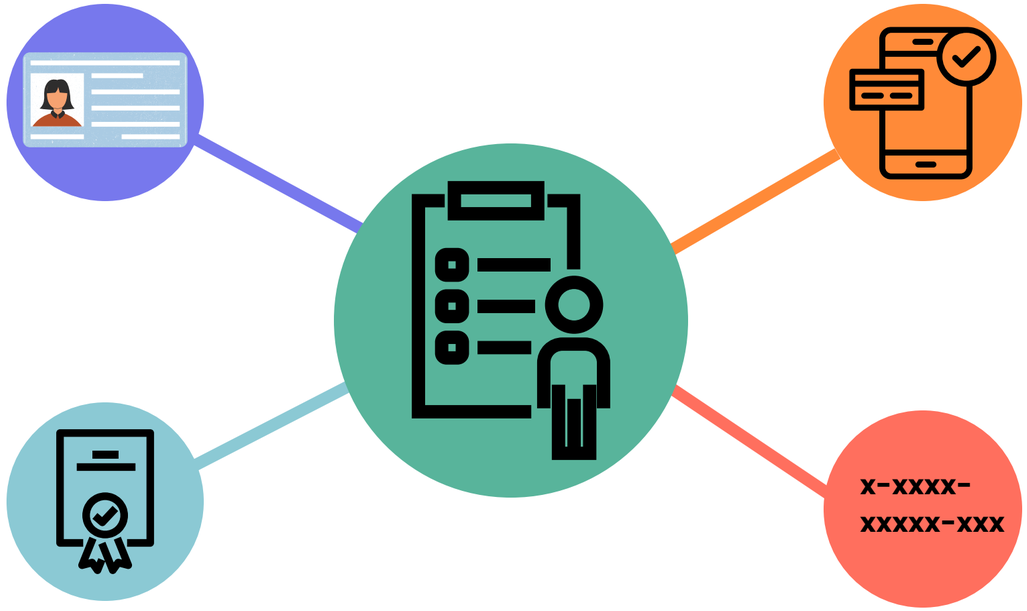
NHSO
National Health Security Office

National ID card

An individual user can be verified by using the national ID card (smart card)

Mobile ID

e-KYC* is required to use the service.



Birth certificate

For young children (under 7 years)

13-digit national ID number

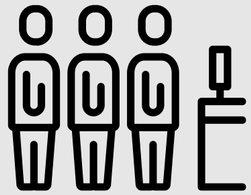
For emergencies or cases without documents

**e-KYC: Electronic Know Your Customer*

THE CHALLENGES OF THE CURRENT SYSTEM

NHSO
National Health Security Office

Delay access to service



- On-site document verification takes time
- Queues build up during manual checks

Risk (Fraud & Misuse)

- Possibility of identity fraud or unauthorized use
- Errors from the manual verification process

Workload

- Staff required to verify documents manually
- High administrative burden for registration staff

Inconvenience

- Patients forget or lose ID cards
- Login issues with the NHSO app

THE GAME-CHANGING TECHNOLOGY: FACIAL RECOGNITION & MOBILE APPLICATION

NHSO
National Health Security Office

"Your Face is Your Health Insurance ID"

FACE RECOGNITION
Biometric technology that verifies identity through facial features — enabling fast, secure, and contactless access to health services.

MOBILE APPLICATION
Smartphone app that lets users check eligibility, manage health rights, and access NHSO services anytime, anywhere.

HOW FACIAL RECOGNITION WORKS FOR BENEFICIARY IDENTIFICATION

NHSO
National Health Security Office

PATIENT ARRIVES

The patient goes to a service point (kiosk or tablet) at the healthcare facility.

SCAN FACE

The system captures the patient's facial image in real-time.

COMPARE

The captured image is sent to the Department of Provincial Administration's Verification System for matching and verification.

VERIFY

The system returns a result to the service unit instantly:
Verified / Not Verified

RECEIVE SERVICE

Upon successful verification, the patient proceeds to receive healthcare services.

KEY BENEFITS OF FACIAL RECOGNITION

NHSO
National Health Security Office

01

Patient Experience

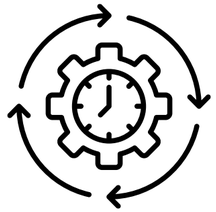
- Quick, seamless check-in
- Shorter waiting times
- Elderly & disability-friendly

02

Data Security & ID Integrity

- Accurate identity verification
- Prevents fraud & unauthorized access

03



Operational Efficiency

- Less admin workload
- Eliminates duplicate records

04

Treatment Accuracy

- Instant access to correct records
- Prevents medication or treatment errors

CHALLENGES & MITIGATION STRATEGIES

NHSO
National Health Security Office

Technical Accuracy
Failures from poor lighting, masks, facial changes, or system downtime

Privacy & Data Security
Concerns about biometric collection and data misuse

Access & Equity
Exclusion of elderly, disabled, or those without smartphones/internet

User Trust
Public hesitation to share facial data for medical use

Technology Enhancement
Liveness Detection, Smart Card/National ID, or OTP fallback options

a

Data Protection
Encrypt facial templates, comply with PDPA, and define data destruction policy

Inclusive Acces
Maintain on-site verification & traditional ID methods, provide easy user guides

Communication & Trust-Building
Clear campaigns on data safety and benefits; ensure opt-in participation

CONCLUSION & NEXT STEPS

NHSO
National Health Security Office

Face recognition is not just a technology.
It is a key enabler for enhancing security and efficiency in the UHC system.




Next Steps

- **Establish a Task Force:** Study legals and technical dimensions in detail.
- **Implement a Pilot Project:** Test at subdistrict health centers or community hospitals to assess real-world impacts.
- **Develop a Communication Plan:** Build public understanding and trust in the system.
- **Facial recognition function** to be included in telemed services

NHSO
National Health Security Office

THANK YOU

Mr.Noppon Maleesuwannachai
Specialist
National Health Security Office (NHSO)
Thailand

For further information, please contact
Email: InterUHC@nhso.go.th