



## Modern tele-medical system for Senior Care Centers and Nursing Homes

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■ Mobile asistent

■ Statationary tele-medical kiosk

## Senior Care – from problem description to comprehensive kiosk solution

- **Initiated in 2018** through cooperation with DPS “Syrena” and the City of Warsaw's.
- **Addressed challenges** in elderly care: chronic diseases, limited diagnostics, aging staff, inconsistent assessments.
- **Goal:** Enable non-medical staff to perform **basic health assessments** reliably and independently.
- Focused on **standardization, automation, and ease of use** for both staff and residents.
- Designed **specifically for DPS** – not for hospitals – taking into account:
  - Low digital literacy among staff.
  - Variable physical and cognitive conditions of residents.
- Development involved **staff workshops, needs analysis, and custom workflow design**.
- Vision: Replace paper routines with **objective, digital, real-time health monitoring**.



## Project timeline

### 2018–2019 – Concept development with DPS Syrena:

- Defined diagnostic needs, roles, workflows, and integration model.

### 2019 – Pro-PLUS SA wins public tender:

- 1 stationary + 1 mobile kiosk for DPS Syrena (pilot project).

### 2020 – Despite pandemic challenges:

- Both kiosks delivered and deployed by November 2020.



### 2021–2022 – Positive pilot results lead to expansion:

- 5 mobile kiosks deployed in other Warsaw DPS facilities:
  - Matysiaki, Kombatant, Św. Brata Alberta, Dla Kombatanta, Wójtowska.

### 2023 – Full integration and infrastructure upgrade:

- 3 new stationary kiosks delivered to DPS Chemik, DPS Budowlani and DPS Pod Brzozami.
- Complete room renovations included: walls, furniture, lighting, cabling.

# Stationary kiosk – complete and dedicated room transformation DPS "Pod Brzozami"



Stationary kiosk – complete and dedicated room transformation DPS „Chemik”

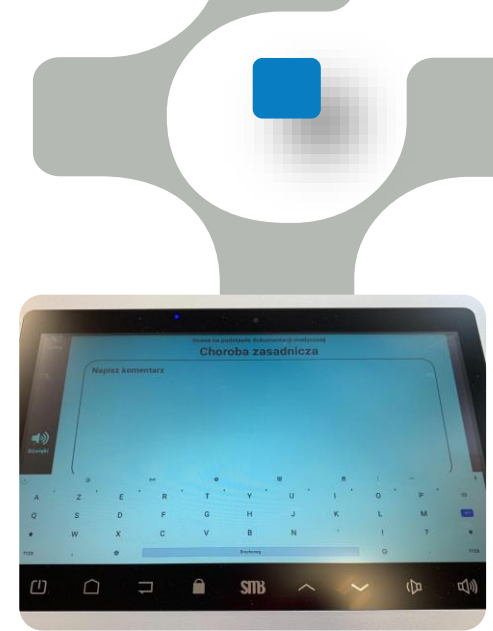


Stationary kiosk – complete and dedicated room transformation DPS „Budowlani”



## Kiosk key functionalities for Social Welfare Houses

- **Resident Check-In:** Quick, comprehensive registration and digital resident profile creation
- **Vital Signs screening:** Integration with medical devices (e.g., blood pressure, temperature, pulse oximeter, ECG, body composition).
- **On-demand monitoring:** periodic screening for residents with chronic diseases
- **Telemedicine Support:** optional video consultations with doctors and remote specialists
- **Health Surveys & Forms:** Comprehensive geriatric assessment based on standardized questionnaires, scales and assessments.
- **Personalized User Interface:** Adapted for elderly residents – large icons, voice guidance, multilingual support.
- **Accessibility Features:** Touchscreen, height-adjustable mobile cart design, and wheelchair access for stationary kiosk
- **Staff Support Tools:** Focus on dedicated tasks per each user group (nurse, caregiver, physiotherapist, psychologist)  
Quick access to resident health summaries which allow to define individually required services



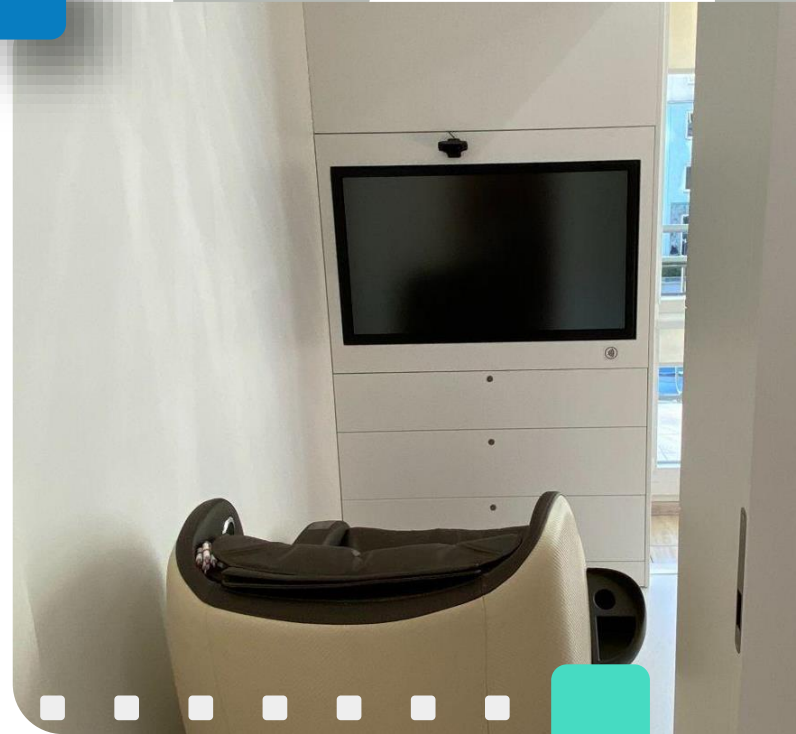
## Daily mobile care at the patient's bedside

- Easy and convenient transport of the device
- Full diagnostics and bedside testing
- Follow-up examinations outside the treatment room and doctor's Office
- Making diagnostic tests independent of the place where they are assessed.
- Guarantee that staff will perform the activities assigned to a given patient – in the correct order and in accordance with the planned scenario.



## Digitalization of medical measurements and processes

- Collecting digital data and measurements.
- Employee profiles/roles embedded in the application (nurse, social worker, physiotherapist, psychologist).
- User interface using voice messages, animations, pictorial instructions – possibility of performing tests by the patient himself.
- Implementation of over 20 types of measurements and medical surveys.
- Dozens of predefined medical surveys, e.g. nursing assessment, Comprehensive Geriatric Assessment (COG).



## Kiosk measurement capabilities

Full 12 lead ECG  
(embedded in armchair or with classic electrodes)

Non-invasive blood pressure

Blood oxygen level (saturation)

Pulse

Glucose level measurement

Body weight

Height measurement (Laser Time of Flight based measurement)

Body temperature

Body composition: muscle mass, water mass, bones mass, fat level and mass, BMI, BMR

PEV (Peak Expiratory Flow) for Chronic Obstructive Pulmonary Disease

Digital camera for skin changes and irritation / allergy

Helicobacter Pylori bacteria detection

## Comprehensive geriatric assesment based on pointed scales and questionnaires

Barthel Scale

VAS Scale (pain level)

Tinneti Scale

MNA Scale

Katz Scale

Lawton Scale

Hamilton Scale and Yesavage Depression Scales

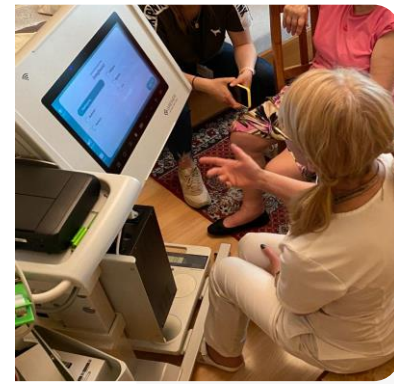
Hodginkson Scale

Folstein Scale

Norton Scale

Mental state, nervous system and sense organ questionnaires

Allergies, respiratory system, skin condition, nutrition and diet, digestive system and many other questionnaires



## Implementation of any medical procedure

Based on the established template

Based on an order received from an external IT system

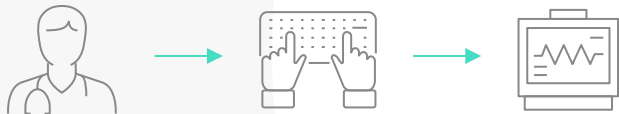


## Implementation of a process tailored to the customer's needs



Based on orders received from external systems

Automatically selected sequence of tests based on the conducted preliminary surveys



# Application of kiosk



## Mobile Telemedicine Assistant Pro-PLUS

Social Welfare Home Private  Nursing Homes Nursing and Treatment Facilities  
Stationary and Home Hospices

Hospital wards

Mobile measurements outside medical units

## Telemedicine Stationary Kiosk Pro-PLUS

Social welfare houses  Private Senior Centertrd  Sanatoriums

Pharmacies

Primary Health Care  Outpatient clinics

Company headquarters  Public places  Mass events





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## Thank you for listening

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