2nd MOMENTUM Workshop

Maccabi Chronic Disease Telemedicine Centre

Berlin

8 April 2013

- **The Maccabi Multidisciplinary Chronic Disease Telemedicine Centre is a routine service (1/7/12) operated by trained nurses providing professional and personal treatment for the patient and their family in coordination with the primary physician**
  - Dedicated proactive professional care
  - Use of computerized clinical protocols
  - Availability and accessibility 24/7
  - Coordinated & integrated with community network
  - Advanced technology platforms

Telephone calls

Video conference

Tele medicine (remote monitoring and care)

A pilot focusing on telemonitoring for Congestive Heart Failure patients was launched in 2008 as a randomized control trial research project funded by the Maccabi Research Institute and the Gertner Institute
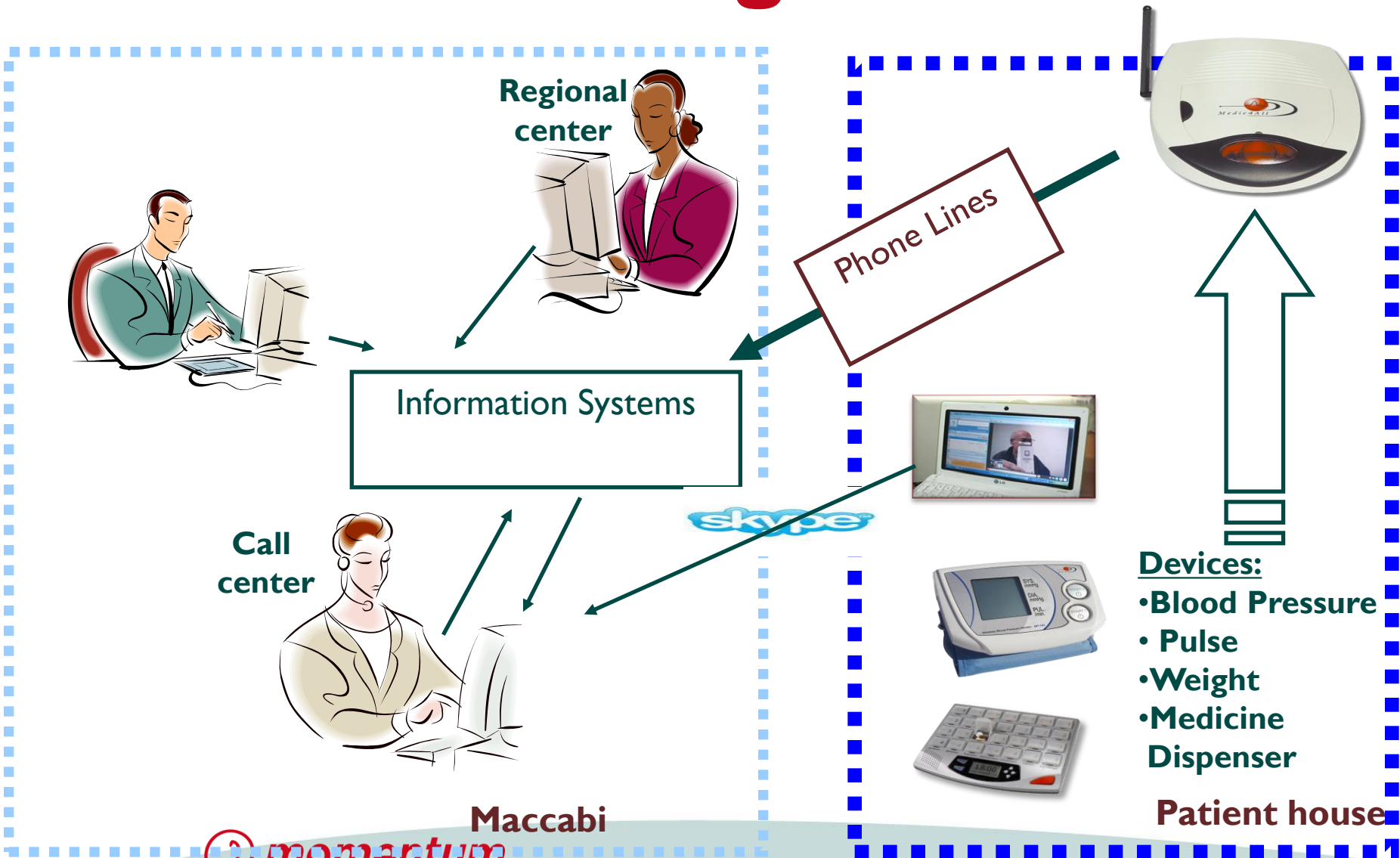

Primary care physician case manager

Multidisciplinary team in regional cardiology centres

Nurse disease manager
National call centre

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Tele monitoring

Regional center

Information Systems

Phone Lines

Call center

skype

Devices:
- **Blood Pressure**
- **Pulse**
- **Weight**
- **Medicine Dispenser**

Maccabi

Patient house

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The Preliminary Results, prior to project completion, convinced Maccabi and Gertner to transform the project into a broader routine service

- **Patient Satisfaction results** ★

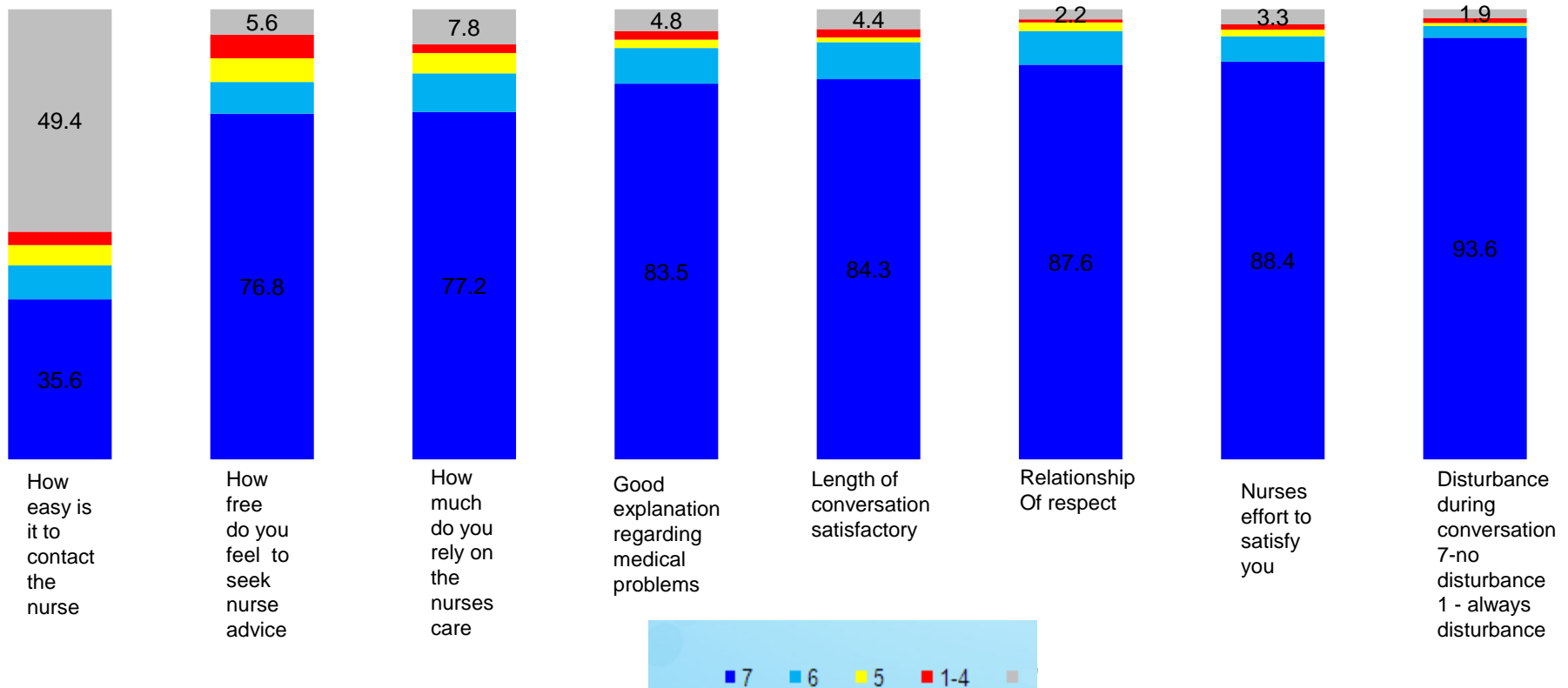- **Impact on Caregiver's Burden and Quality of Life**
  - Sample – 450 pairs of patients/primary caregivers
  - Data collected: enrollment, 6 months, 12 months
  - Measurement tools:
    1. Patient Assessment of Chronic Care questionnaire(PACIC)
    2. Caregiver demographic questionnaire
    3. SF12 (quality of life questionnaire)
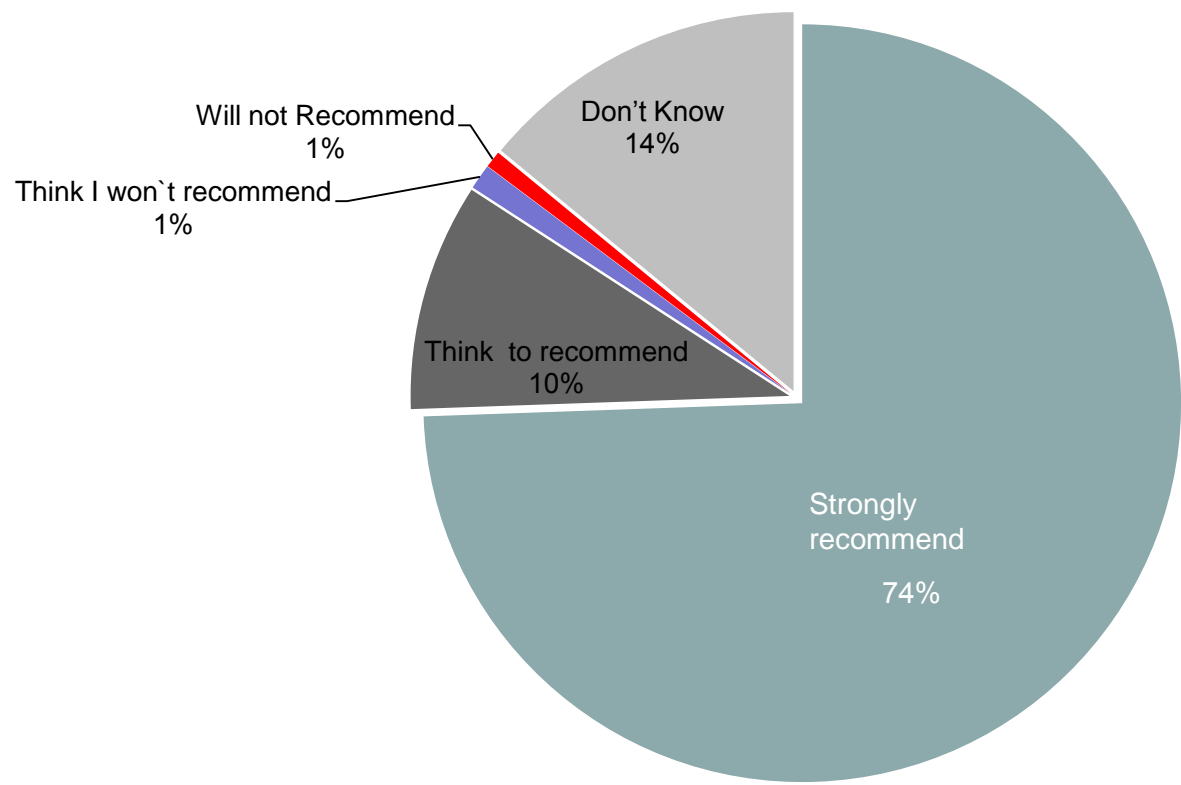   4. Zarit Burden Interview (ZBI)
  - Results:
    - Significantly reduced caregiving burden score
    - Correlation between patient assessment of quality and caregiving burden
    - Significantly higher mental health score for primary caregiver

Satisfaction from the Nurse in the CHF Call Centre

Recommendation to Others to Join the CHF Program

Will not Recommend 1%

Think I won`t recommend 1%

Don't Know 14%

Think to recommend 10%

Strongly recommend 74%

The service in routine care

- **Prior to multidisciplinary telecentre:**
  - Care provided by primary care physicians
  - Supported by specialists (cardiologists, endocrinologists), multidisciplinary secondary care centres
- **The primary users of the multidisciplinary centre:**
  - Primary caregivers
  - Primary care physicians
  - Patients with the following chronic conditions:

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Target populations

STOMA

Diabetes

CHRONIC WOUNDS

HEART REHABILITATION

CHF Grade 2-4

COPD Grade 2-4

Home care patients (Stabilized)

Stabilized patients 4000

FRAIL COMPLEX PATIENTS 6000

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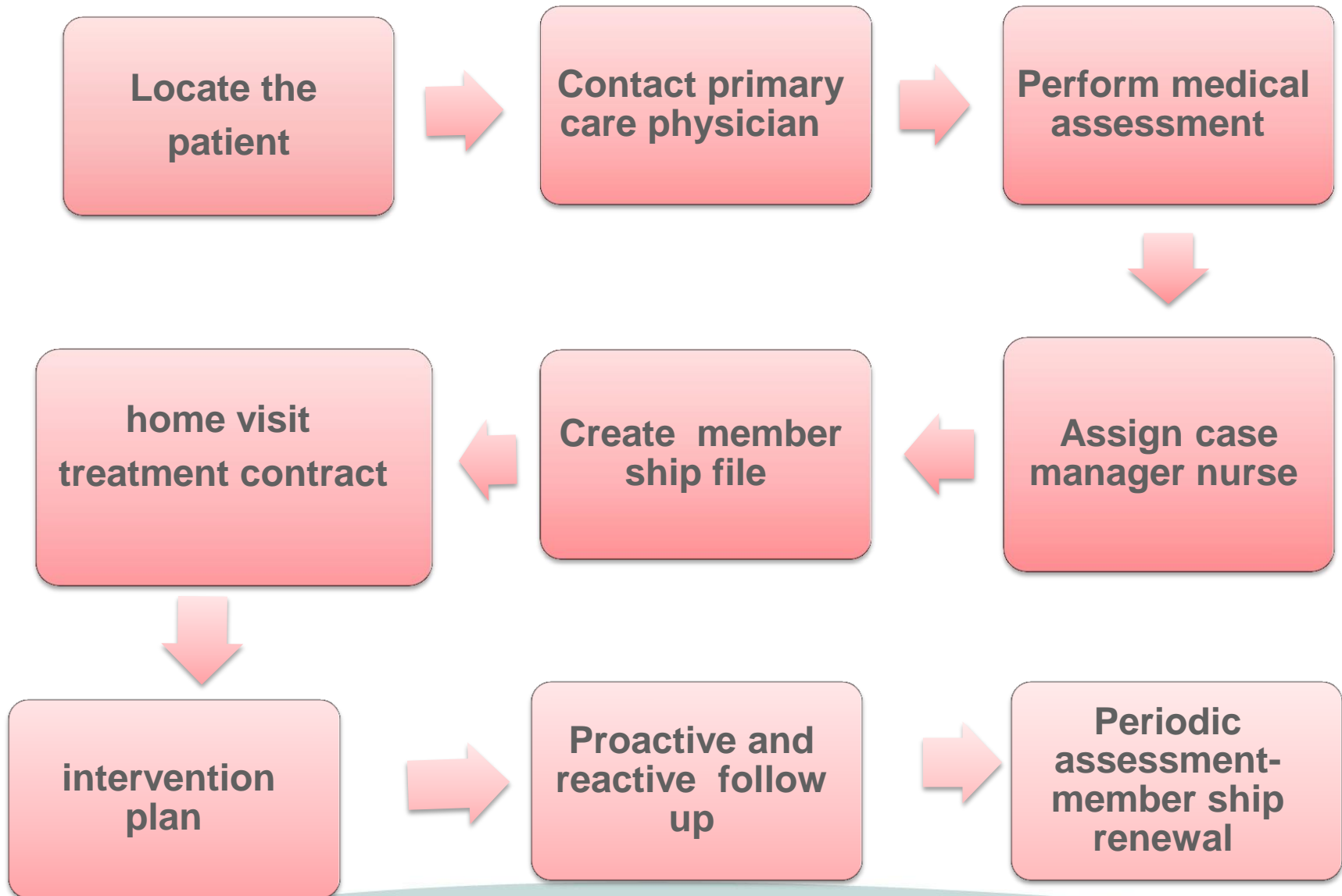ADVANCING TELEMEDICINE ADOPTION IN EUROPE

Strategy and Management

- **Maccabi budget for ongoing medical services**
- **Financial support from the Gertner Insititute:**
  - Initial set up costs
  - Ongoing costs (for 3 years)
  - Finances use of the Telecare Centre as an incubator for continued technological development.
- **Who benefits?**
  - The patients
  - The primary caregivers and their families
  - Patients' primary care physicians.
  - Maccabi- Initial data shows:
    - reduction in unnecessary physician visits (stoma, diabetes)
    - reduction in unnecessary ER visits and hospitalizations anticipated

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Organisation and change management

- **Maccabi senior management (CEO and relevant division and department heads):**
  - Made decision to move from pilot to routine care
  - Demanded and approved measureable objectives, action plans and due dates
  - Clearly defined responsibility and accountability
  - Close monitoring by senior management
- **Intensive training program developed and implemented for call centre staff:**
  - Use of the clinical protocols, technology, disease management
  - how to communicate with patients and caregivers
- **Care givers and patients trained in use of the technology (tablets for videoconference and other devices).**
- **Patients (and their caregivers)**
  - must agree, give informed consent to be in the program
  - alternative -continue regular care through the primary care doctor and the relevant specialists.

Patient Recruitment Procedure

Locate the patient → Contact primary care physician → Perform medical assessment

Assign case manager nurse ← Create member ship file ← home visit treatment contract

intervention plan → Proactive and reactive follow up → Periodic assessment- member ship renewal

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Legal, regulatory and security issues

- **Telemedicine – legally - another modality for health care delivery like telephone.**
- **Main change - obligation for structured documentation by the healthcare professional.**
- **Data Systems had to be modified:**
  - Enable full access of call centre nurses to the patients' EMR
  - Creation of a computerized disease management solution
  - Computerized, proactive and interactive protocols
  - Algorithms correlate patient/caregiver/nurse interaction inputwith EMR
  - Provide guidance for the call centre nurse

Technical infrastructure and market relations

- **Maccabi Infrastructure:**
  - comprehensive health ICT system
  - central EMR used by all providers.
  - doctors and health professionals have been working electronically for over 20 years.
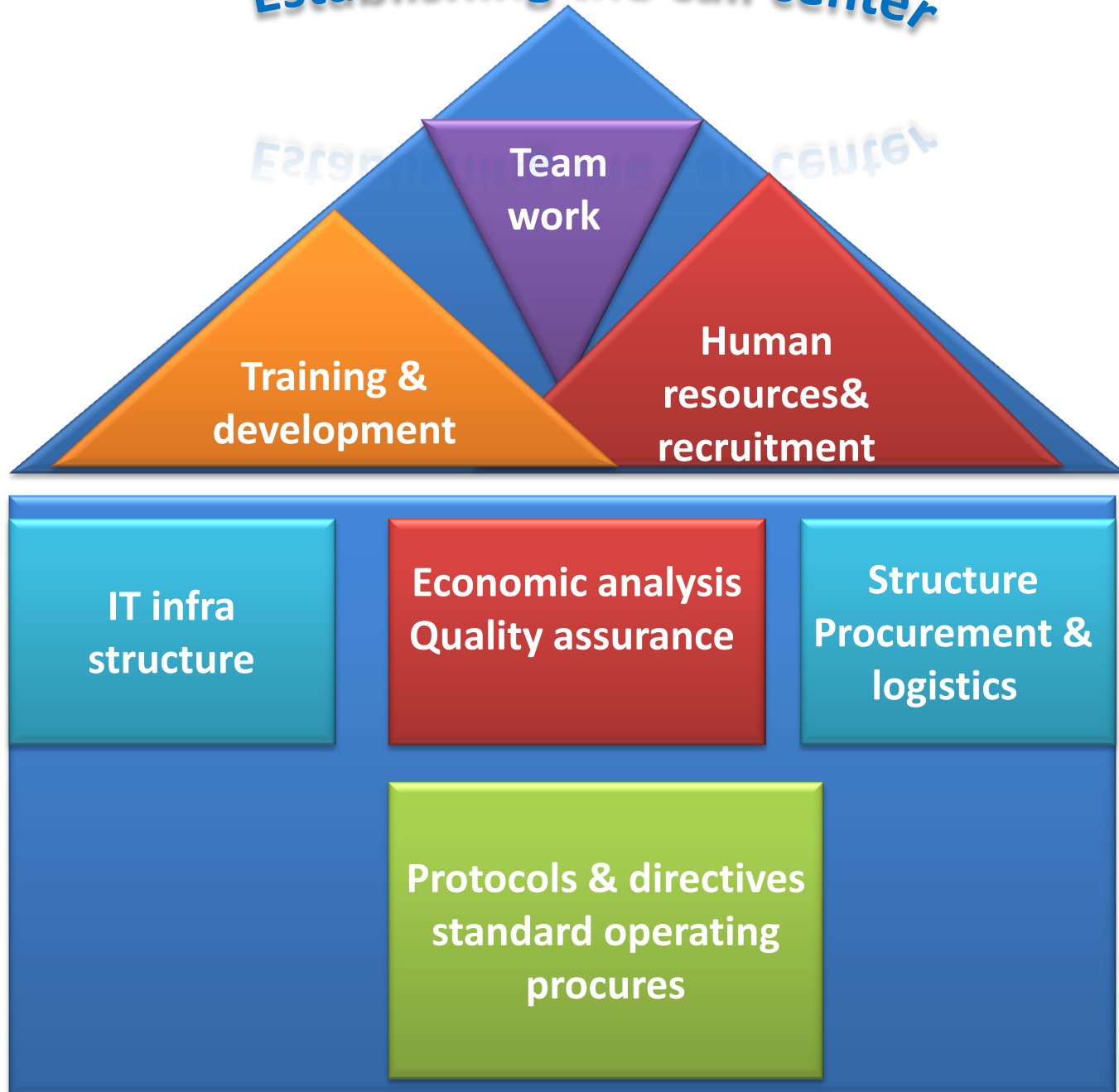- **Maccabi uses various vendors for different aspects of the system:**
  - an EMR vendor
  - vendors for web-based services
  - vendor for the rule-engine.
  - Maccabi ICT department
    - chooses and coordinates among the vendors
    - Integrates all components of the system into a seamless whole.
    - Telemedicine services are integrated with the existing IT system including existing Maccabi EMR.
- **Standards and Interoperability played a role in the choice of vendor**
- **Maccabi has a sophisticated security system which constantly monitors all of the system transactions against predefined parameters and standards**

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THANK YOU FOR YOUR ATTENTION