### ACSION | Advanced Care Solutions and Insights for Optimization





# Agenda

#### Reasons for automation

#### • The road towards Population Health Management

- IHSDN: Integrated Health Service Delivery Networks
- Implementation of health information systems
- Lessons learned



# Our care is focused on the tip of the iceberg

Our actual problem lies deeper

- Almost 80% of the budget is spent on the top 20% most expensive patients
  - More than 50% on the top 5%
- These costs cannot be saved anymore
  - They have been made already
  - 2/3 of this group is not alive or as expensive once we have these data
- Healthcare should also focus on the 'healthy' persons,
  - By paying attention to hidden problems, escalation to the top 20% can be prevented



The key objective of Information Systems for Health should be to prevent diseases and avoidable complications and costs



# **Reasons for Information systems for health(care)**

#### 1. Safety and quality of patient care

- All *relevant* and *correct* information from the patient at the right time
- Data (information)  $\rightarrow$  knowledge/input to manage quality, safety and efficiency

#### 2. Multidisciplinary collaboration

- Reduce fragmentation of multidisciplinary care
- Electronic sharing of patient information
- Alerts and messaging generated by different systems

#### 3. (Cost) efficiency

- Reducing waste: Less duplication, unnecessary actions and fraud
- Prevent avoidable complications through preventive measures and monitoring

#### 4. Changing the reimbursement model

- Currently the focus is on treatment of disease instead of keeping the population healthy



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### From the current fragmented care to multidisciplinary collaboration



**Current Situation** 

#### Vision Information systems for health





# IS4H: Information systems to create Integrated Health Services Delivery Networks (IHSDN)



Integrated Health Services Delivery Networks (PAHO)



## Data pyramid

Focus on the users to ensure consistent and cored use of the systems





# Support multidisciplinary cooperation and continuity of registration – integral set of requirements





**For too long, we have equated health outcomes almost exclusively with the amount and quality of medical care** (Fundamentals of healthcare reform, CT 53)

What determines Health and Wellness



Source: Elizabeth H. Bradly, PhD. The American Healthcare Paradox



# Shift from claims data to EHR data for Population Health Management

#### **Claims data**



#### **Electronic Health Record**



#### Population Health Management Dashboard



'When money has been spent...'

'Only the people who seek care...'

'Predicting, warning and timely intervention...'





# Wellness & Health approach: prevention is better and cheaper than curing avoidable diseases and complications







## **Example of a Dashboard for Population Health Management**





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# **Lessons learned**

#### **1.** Have a National Health Information strategy in place

- Strategy is about making choices and managing alignment between different stakeholders
- A strategic framework is necessary to align decision making and coordinate the different activities
- A generally accepted framework tailored to the needs of the stakeholders in the country

#### 2. Automation in healthcare is more than just technology (hardware and software)

- Focus on the objectives in healthcare
- Information systems are a means to achieve these objectives, no more no less

#### 3. Involve stakeholders from the beginning

- Identify needs and desires of stakeholders
- Identify information and knowledge needs
- The health information system has to support the primary processes of the healthcare provider

#### 4. The patient is the owner of his/her data

- The patient has to give permission (Informed consent) for the use of his / her data: who, where, when and under what circumstances



## **Lessons learned**

#### 5. Keep the IT infrastructure simple

- Use uniform data standards to register data
- Use an unique ID for the healthcare system, allowing relevant data to be connected to the right person
- Define and agree upon data governance
- 5. Each country should investigate whether their laws will permit providers to share medically sensitive information as well as other restrictions on sharing medical data
- 6. To ensure interest and engagement of the healthcare providers
  - Reward them for correct and consistent use of their health information system



# Take home messages

- Implementing information systems for health is inevitable
  - Quality and safety
  - Waste and fraud
  - Instead of paying for illness, investing in keeping the population healthy.

#### • Users' needs are paramount

- Other benefits follow automatically
- Integral approach is necessary: the needs of all are above the needs of the individual
- Population Health Management is the care of the future

