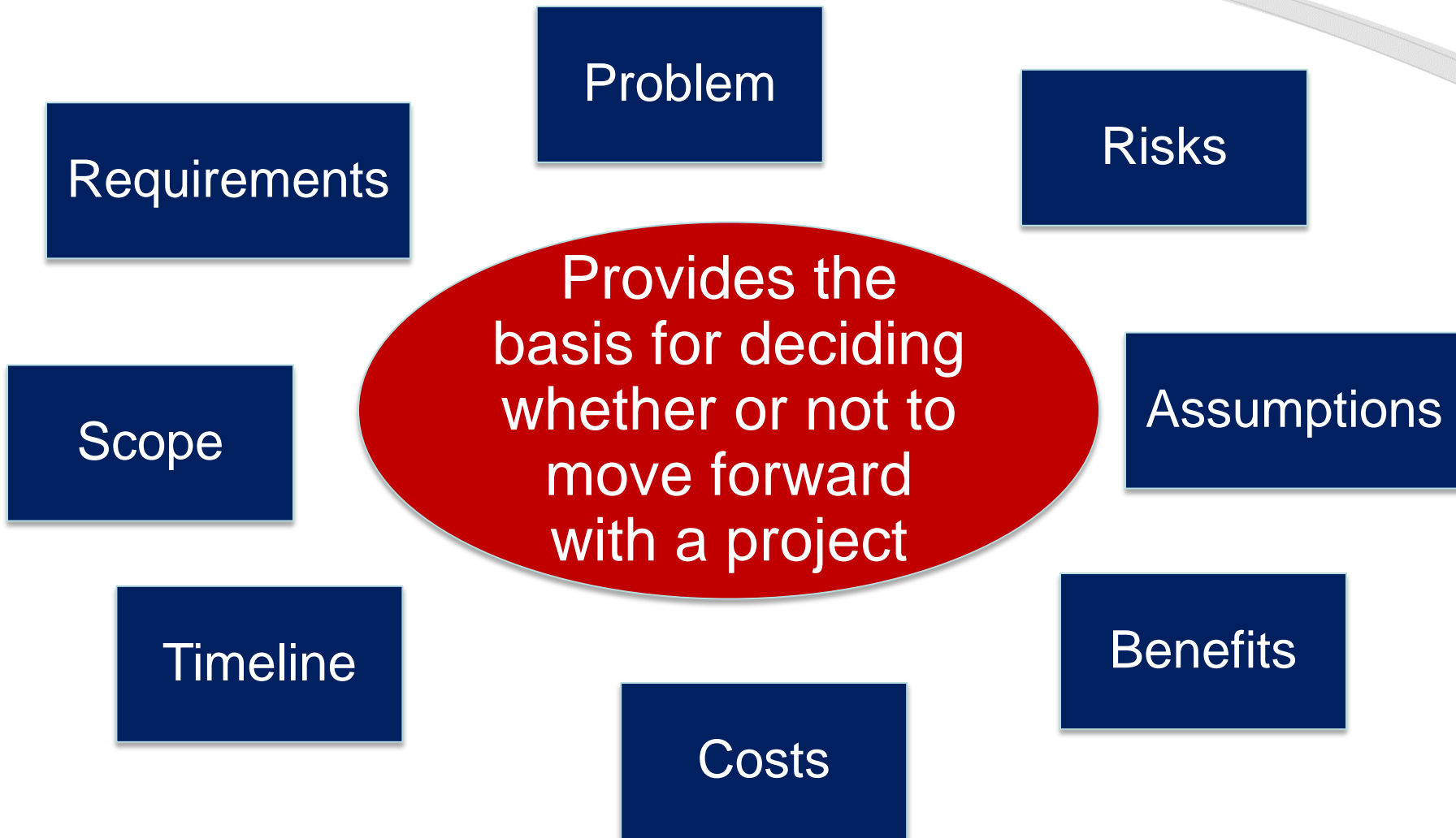


Developing a Business Case

Elena Karahanna
University of Georgia

CPD Workshop
April 6-7, 2017

The Business Case



Business Case Components

- **Problem Description (WHY)**
 - What is the problem/opportunity and the general idea for the solution?
- **Business Requirements (HOW)**
 - What capabilities does the solution need to have?
 - Helps define the high level user/business requirements
 - Helps define the scope
- **Business Benefits (Objectives) (WHAT)**
 - The benefits that accrue to the organization/stakeholders
 - Tangible (in dollars) and intangible benefits
- **Costs**
 - The costs for the organization/stakeholders
 - Tangible, intangible, development and operational (recurring)
- **Risk Assessment and Feasibility Analyses**
- May also contain special issues or constraints

**Describe Problem/
Opportunity**



**Identify
Requirements**



For Each Alternative

**Identify & Quantify
Benefits**

Estimate Costs

**Take into account Non-
Financial Costs and
Benefits**

Document Assumptions

**Assess Risks and Perform
Feasibility Analyses**

**Perform Sensitivity
Analyses**



**Develop
Plan**



**Make
Recommendation**

Problem Description (WHY) Example

HMO Program for Diabetes Management

Diabetes is one of the most common—and most costly—chronic diseases. Lack of proper treatment can lead to blindness, end-stage renal disease, nerve damage and amputations, heart disease, or stroke. Diabetes care is often poorly managed, and the disease exacts a high toll on society in terms of health costs and lost productivity.

Over the last five to ten years, a variety of diabetes management strategies for patients and providers have emerged. They all fall under the definition of disease management. Different programs offer different services, but a few key elements are common to all programs. The basic idea is that diabetic patients' long-term health can be improved and medical care costs can be saved if patients learn about their disease and become active participants in managing their health. The focus of disease management is on prevention and control rather than on acute care. The aim is to improve the coordination of care and reduce the number of hospitalizations and severe complications among diabetic patients.

**PROBLEM
DESCRIPTION**

Problem Description (WHY) Example

HMO Program for Diabetes Management

Diabetes is one of the most common—and most costly—chronic diseases. Lack of proper treatment can lead to blindness, end-stage renal disease, nerve damage, and other complications. Diabetes care is often poorly managed in society in terms of health costs.

GENERAL IDEA FOR SOLUTION & JUSTIFICATION

Over the last five to 10 years, new types of care management strategies for diabetes have emerged and been adopted by some providers. They all fall under the definition of disease management. Different programs offer different services, but a few key elements are common to all programs. The basic idea is that diabetic patients' long-term health can be improved and medical care costs can be saved if patients learn about their disease and become active participants in managing their health. The focus of disease management is on prevention and control rather than on acute care. The aim is to improve the coordination of care and reduce the number of hospitalizations and severe complications among diabetic patients.

Business Requirements (HOW) Example

High level user needs/business requirements

The program must include

- Patient and physician education
- Programs about weight control and other lifestyle changes for members
- Adherence to clinical guidelines
- Nurse case management
- Monitoring and Tracking
 - tracks members according to risk, charts medication and tests, and disseminates educational information about diabetes
 - identify and alert physicians to members at risk of developing diabetes

Business Benefits (Objectives) (WHAT)

Example

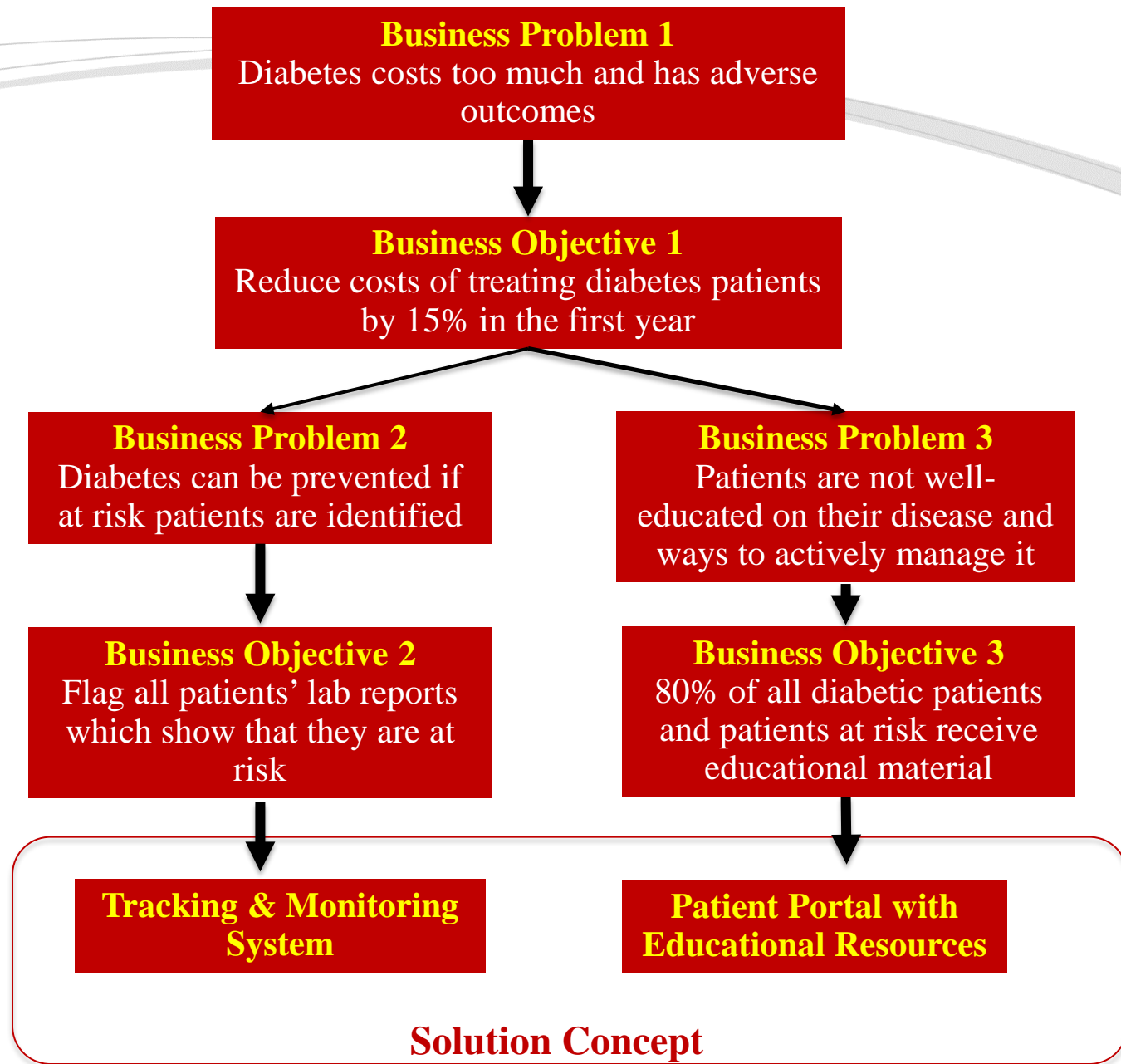
- Reduce costs for specialist visits by 30% by year 2
- Reduce number of emergency room visits by 5% the first year and by 25% by year 3
- Reduce hospital inpatient stays by 20% by year 3
- Reduce costs from managing blindness by 12% by year 5
- Reduce number of amputations by 35% by year 5
- Reduce number of end-stage renal failures by 40% by year 5
- A reduction in A1C levels of 15% by year 2
- Increase average life expectancy of diabetic patients by X% by year 5
- Increase quality of life for diabetic patients (THIS ONE IS HARD TO QUANTIFY OR MAKE SPECIFIC)
- Observe health-related behavioral changes
- Achieve an average of 80% of the patients being satisfied with the program by year 2

Objectives need to be

- **specific and verifiable** (No platitudes (e.g., become world-class xyz) or vaguely stated improvements (e.g., provide more rewarding customer experience))
- **associated with a timeframe**
- **associated with a stakeholder**

Problems and Objectives are Intertwined

- Understanding one can help us understand the other
- For each business objective, ask
 - “What is keeping us from achieving this goal?”
 - This helps identify a more detailed business problem
 - “Why do we care about this goal?”
 - Helps understand a higher level business problem or opportunity
- For each business problem, ask
 - “How will we assess whether the problem is solved?”
 - Helps identify measurable business objectives
 - Helps identify a set of features to meet the objectives



Conditions of Satisfaction

- How do we know we have attained the benefits described in the business case?
- Think of specific measures
- Think ahead and collect data – sometimes this involves a before and after comparison
 - e.g. reduction in hospital inpatient days by 30% (involves before/after measures)
 - Fewer medication errors (involves before/after measures)
 - Achieve an average of 80% of the patients being satisfied with the program (involves only after measures)
- Think of standard cases as well as exception cases

Costs Example

- Development Costs
 - Development cost of the system (IT personnel salaries, software, hardware)
 - Costs of developing educational material for patients and physicians
- Operating Costs
 - Higher premium for health insurance (for patients)
 - Costs of additional nurses and administrative staff
 - Increased costs because of more visits to nutritionists and exercise counselors
 - Increased lab costs

Costs should be quantified if possible

- Document any assumptions
- Identify timeframe and stakeholder

Determining Project Risk and Feasibility

- Guides the organization in determining whether to proceed with a project
- Identifies the project's risks that must be addressed if the project is approved
- Different types:
 - Economic feasibility
 - Technical risk and feasibility
 - Organizational risk and feasibility

Economic Feasibility

SHOULD We Build/Do It?

- Answers 3 basic questions:
 - How much will it cost?
 - Development Costs
 - Annual Operating Costs
 - Intangible Costs
 - How much will the client get out of it?
 - Annual Benefits
 - Intangible Benefits
 - Is it worth it?
 - Cost-Benefit Analysis
 - Cost-Effectiveness Analysis
 - Cost-Utility Analysis
 - Cost-Feasibility Analysis

Cost-Benefit Analysis

The evaluation of alternatives according to their costs and benefits when each is measured in monetary terms

- Return on investment (ROI)
- Net present value (NPV)
- Internal Rate of Return (IRR)
- Break-even point
- Payback Period

Take into Account Intangibles

- Intangible benefits cannot be measured in dollars
 - Increased quality of life for diabetic patients
 - Patient satisfaction
 - Increased life expectancy by X years
- Intangible costs that cannot be measured in dollars
 - Reduced employee morale
 - Lost productivity (may be possible to estimate in some cases)
 - Lost customers or sales (may be possible to estimate in some cases)

Technical Risk & Feasibility

CAN We Build/Do It?

- Domain knowledge
- Familiarity with similar projects
- Project size
 - Number of organizations, people, time, and features
- Compatibility w/ other systems/processes in the organization or across organizations
 - Level of integration required

Organizational Risk & Feasibility: If we Build It, *WILL THEY COME?*

- Identify Stakeholders. For each stakeholder group
 - Do the potential users like the idea?
 - Will the users actually use it if it is implemented?
 - Do they have reasons to resist it? Any negative impacts?
 - How much power do they have?
- In addition:
 - Do the organizations' power people support it?
 - Does it fit the strategy and long-term plans of the organization? (strategic alignment)
 - How well does the new system fit the organizational culture?
- Things to consider include:
 - Lack of time
 - Lack of incentives
 - Power shifts
 - Fear of change of job responsibilities
 - Fear of loss of employment
 - Reversal of long standing procedures
 - Loss of control

Risk & Feasibility

- Having identified the risks, can these be mitigated? If so, how?
- Mitigating risks may result in
 - Additional costs
 - More conservative estimates of benefits
 - A longer horizon for benefits to materialize
 - Identification of implementation strategies to make initiative more attractive
 - Modifications in the proposed solution to make it more attractive
 - A staged approach to delivering the solution

