PROJECT
RISK ANALYSIS
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MAKING SURE YOUR PROJECT DOES NOT FALL APART ON YOU BECAUSE OF POOR PLANNING

• How do you identify the risks?
• What is the potential impact of these risks?
• How do you mitigate the risks?
• How do you know if your idea will work in the face of risks?
What is Risk Management?

- The process of identifying, assessing, and controlling risk arising from your project’s operational factors, and making an informed decision that balances risk cost with project benefits.
SWOT Analysis

Strengths
- Capabilities
- Competitive advantages
- Resources, assets and people
- Experience, knowledge and data
- Financial reserves, returns
- Marketing, reach
- Innovative aspects
- Location, geographical
- Price, value and quality
- Processes, systems, it, communications
- Advantages of proposition

Weaknesses
- Lack of capabilities
- Gap in competitive strengths
- Reputation, presence and reach
- Timescales, deadlines and pressures
- Financials
- Cash flow, cash drain
- Continuity, supply chain
- Effects on core activities
- Reliability of data, plan and project
- Management cover & succession

Opportunities
- Market developments
- Industry or life style trends
- Innovation and technology development
- Global influences
- Market dimensions, horizontal, vertical
- Target markets
- Geographical import, export
- Major contracts, tactics and surprises

Threats
- Political and economical effects
- Legislative effects
- Environmental effects
- Competitive intentions
- Market demand
- Innovation in technologies, services and ideas
- New contracts and partners
- Loss of resources
- Obstacles to be faced
- Poor management strategies
Assessing Risk

Risk = \textbf{Probability} \times \text{Impact}

Four Categories of the Probability of Occurrence of Adverse Consequences: i.e. Hazards
Assessing Risk

Risk = Probability of Adverse consequence x Impact

Severity: The Expected Level of Impact of Adverse Consequence (Hazards)
WEIGHING TWO FACTORS

Probability vs severity of Impact
<table>
<thead>
<tr>
<th>Probability</th>
<th>Trivial</th>
<th>Minor</th>
<th>Moderate</th>
<th>Major</th>
<th>Extreme</th>
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</thead>
<tbody>
<tr>
<td>Rare</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
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<tr>
<td>Unlikely</td>
<td>Low</td>
<td>Low</td>
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<td>Moderate</td>
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<tr>
<td>Likely</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
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<tr>
<td>Very likely</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
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Determine Residual Risk

- Reassess Hazards After Applying Controls
- What is the Residual Risk?
- Keep Adding Controls Until Benefits Outweigh Risks
- Residual Risk Only Applies if Planned Controls are Implemented
## SUMMARY OF ASSUMPTIONS ABOUT RISK

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<th>Data Sources</th>
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**LOGICAL FRAMEWORK**
### SUMMARY OF ASSUMPTIONS ABOUT RISK LEADING TO RE-EXAMINATION OF INPUTS

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CASE EXAMPLE
PEACE CORP VOLUNTEER NURSES FROM
GEORGE WASHINGTON UNIVERSITY SCHOOL OF NURSING
-TRAINING BEST PRACTICES FOR NURSES IN RURAL CLINICS IN
MOROCCO

AMERICAN NURSES: RN Degree = 2 years training after Bachelor’s Degree

MOROCCAN NURSES: Certificate in nursing= 2 years after Baccalaureate Degree
The principal hazards of sterilization by using Autoclave are:

- infectious disease caused by failure to sterilize
- contamination of products and other materials through failure to sterilize
- trauma injury by explosive displacement or opening of a door or lid
- trauma injury by explosion of sealed glass or other containers
- puncture injury by needles and other sharps protruding through the walls of autoclaved containers
- scalding by hot liquids, vaporized liquid or steam.
If control measures are not in place and/or not maintained, Principal Level of Risks are:

<table>
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<th>Risk</th>
<th>Level of risk</th>
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<tr>
<td>Infectious disease</td>
<td>Substantial risk (likely, harmful to extremely harmful depending on agent)</td>
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<tr>
<td>Contamination</td>
<td>Moderate risk (likely, slightly harmful to harmful depending on agent)</td>
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<tr>
<td>Trauma injury</td>
<td>Substantial risk (likely, harmful)</td>
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<td>Scalding</td>
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RISK OF USING DISPOSABLES

Principal Hazards of Improper disposing of Medical Disposables are:

• the particular legal possibility

• the financial threat

• the danger to personnel and patients

• The danger towards the community

• The danger to the institution’s reputation
Taking research to action