

Establishing A MultiDisciplinary Nutrition Team

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Learning Objectives

- **Describe how to establish the multidisciplinary nutrition team and describe an alternative approach for an underfunded healthcare system.**
- **Discuss the importance of using an interdisciplinary approach to clinical nutrition practice**
- **Describe the systematic steps needed to develop a nutrition team and name the key responsibilities of each member**
- **Discuss best methods of communication between the team and how the team stay updated in clinical nutrition**

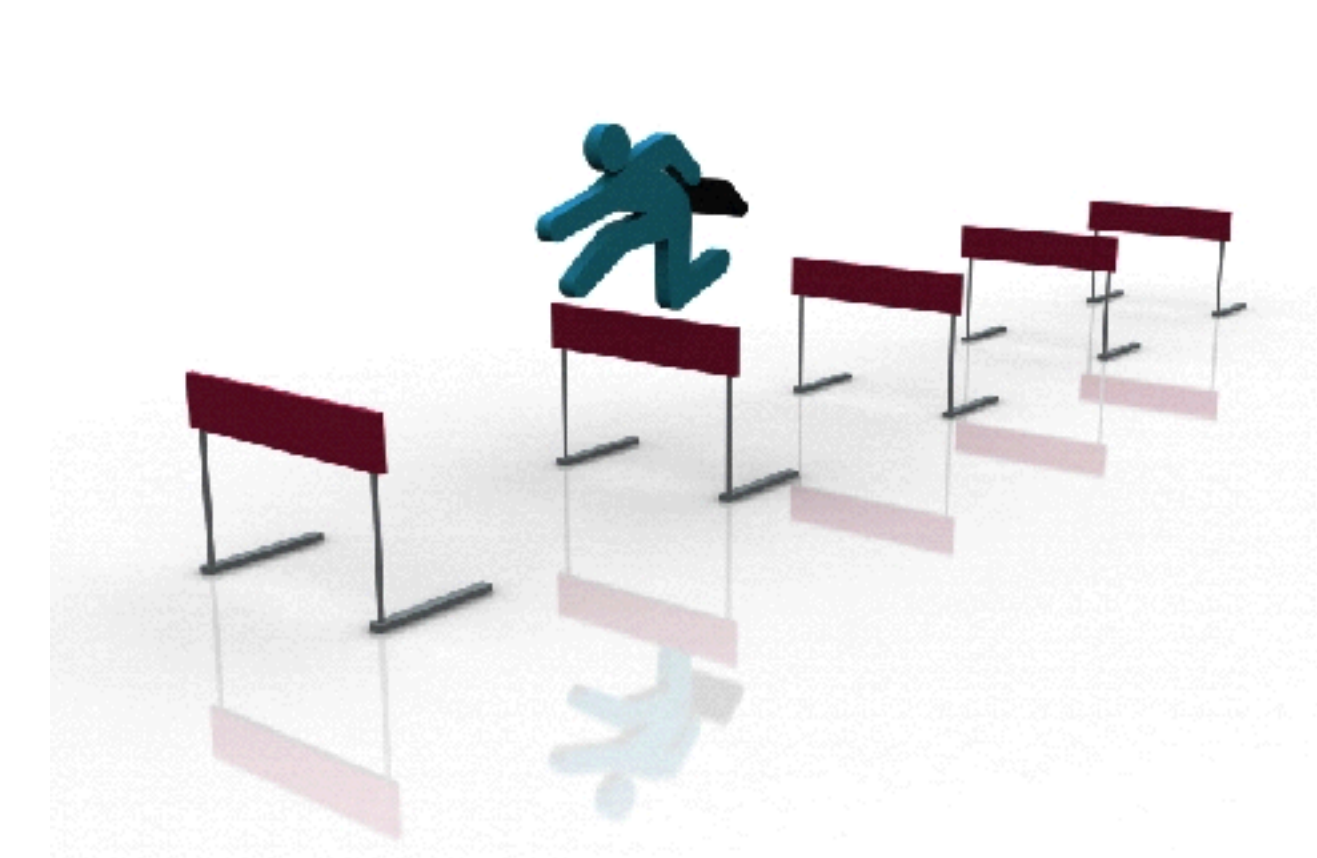
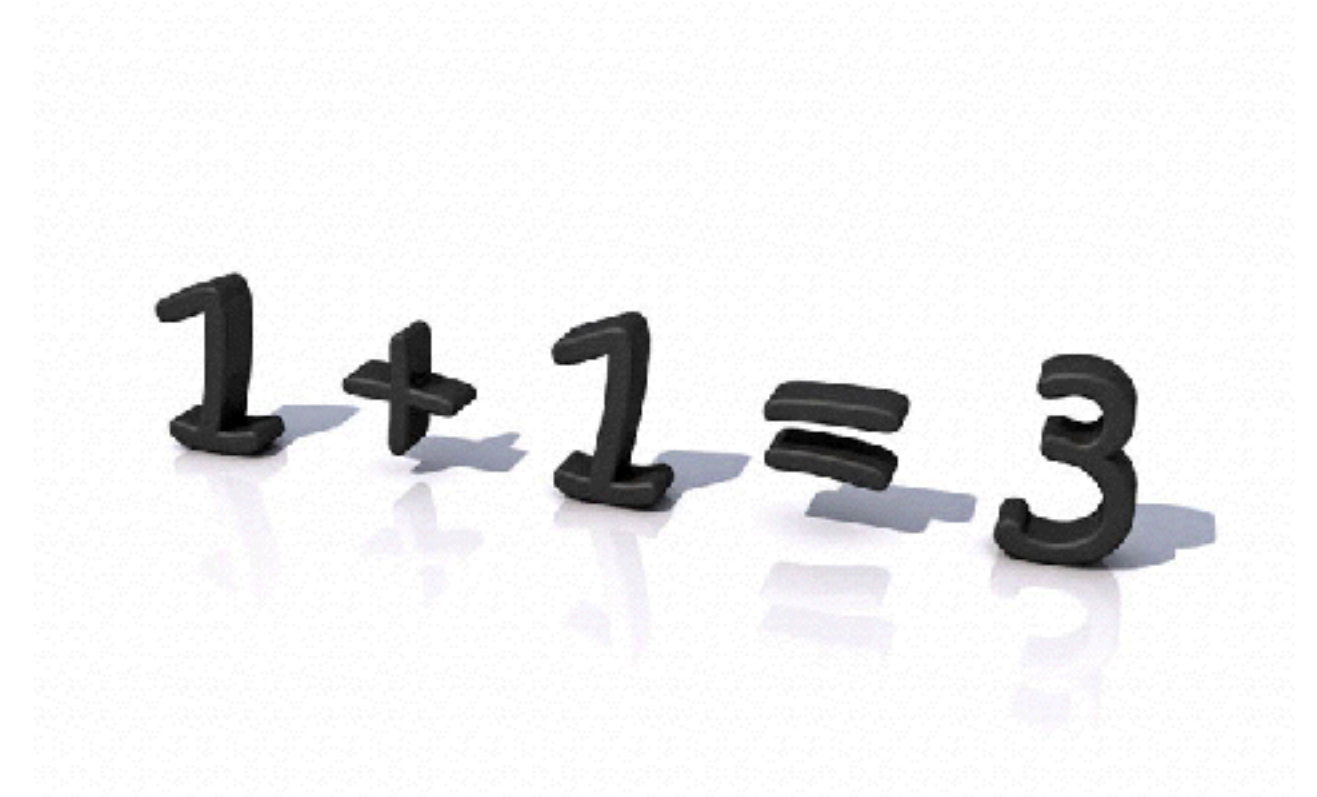
How to establish a multidisciplinary nutrition team?

- Look for a champion
- Look for enthusiastic early adopter team players with diverging background
- Secure managerial back-up
- Organize a kick-off meeting, with internal PR exposure
- Organize funding and administrative support



Importance of using an interdisciplinary approach to clinical nutrition practice

- **1+1=3**
- **to overcome implementation barriers an interdisciplinary approach helps**
- **Combine scientific knowledge and expertise with practical experience on what will work during implementation**
- **Will improve feed-back communication**

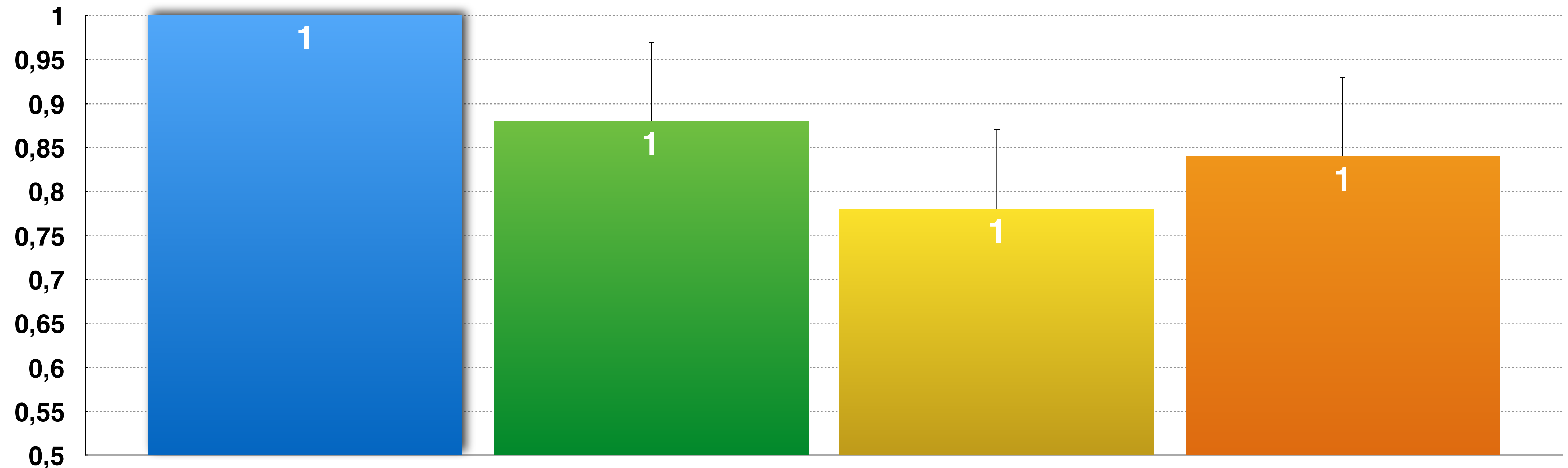


Multidisciplinary care teams reduce mortality

- **Aim: to determine the independent effect of multidisciplinary care teams on the mortality of critically ill patients.**
- **Data from 107,324 patients admitted to 112 acute care hospitals in Pennsylvania between 2004 and 2006.**
- **Multidisciplinary care was associated with a 16% reduction in the risk for death (odds ratio [OR], 0.84; 95% confidence interval [CI], 0.76 - 0.93; P = .001)**

Multidisciplinary Care Teams reduce Mortality in the ICU

- ICUs with low-intensity physician staffing but no multidisciplinary care teams
- ICUs with low-intensity physician staffing and multidisciplinary care teams
- ICUs with high-intensity physician staffing and multidisciplinary care teams
- Multidisciplinary care versus no Multidisciplinary care



Alternative approach for an underfunded healthcare system

- **Identify the main consequences of underfunding**
 - **Staffing shortage**
 - **Resources shortage (clinical nutrition)**
 - **Combinations**
- **Keep it simple**
- **Keep in mind that outcome can improve and LOS reduced by nutritional support to patients**
- **Even in underfunded healthcare nutrition is important, probably even more due to the higher incidence of malnourished patients**

Systematic steps to develop a multidisciplinary nutrition team

- Organizational learning is important in this context because medical knowledge changes constantly, and hospital care units must learn if they are to provide high quality care.
- To develop a model of how improvement project teams promote essential organizational learning in health care, we draw from three streams of related research - best practice transfer (BPT), team learning (TL), and process change (PC).



What works?

- **learn-what (activities that identify current best practices)**
- **learn-how (activities that operationalize practices in a given setting).**
- **high level of supporting evidence for a unit's portfolio of improvement projects was associated with implementation success.**
- **Learn-how was positively associated with implementation success, but learn-what was not.**
- **Psychological safety was associated with learn-how, which was found to mediate between psychological safety and implementation success.**



Key responsibilities of each member in the Nutrition Team

General goals:

- **Interdisciplinary approach**
- **Continuity of care from ward to ICU to ward again and from the inpatient setting to the outpatient setting**
- **Commitment to help patients reach their individual goals in order to improve outcome.**

Team members

Composition may vary per setting

- **Champion:** role more important than highest ranked person
- **Physician:** intensivist, gastroenterologist, surgeon, pharmacist (PN)
- **Paramedics:** RNs, ICU RN, dietitian, nutritionist, specialized nutrition RN
- **Secretary**

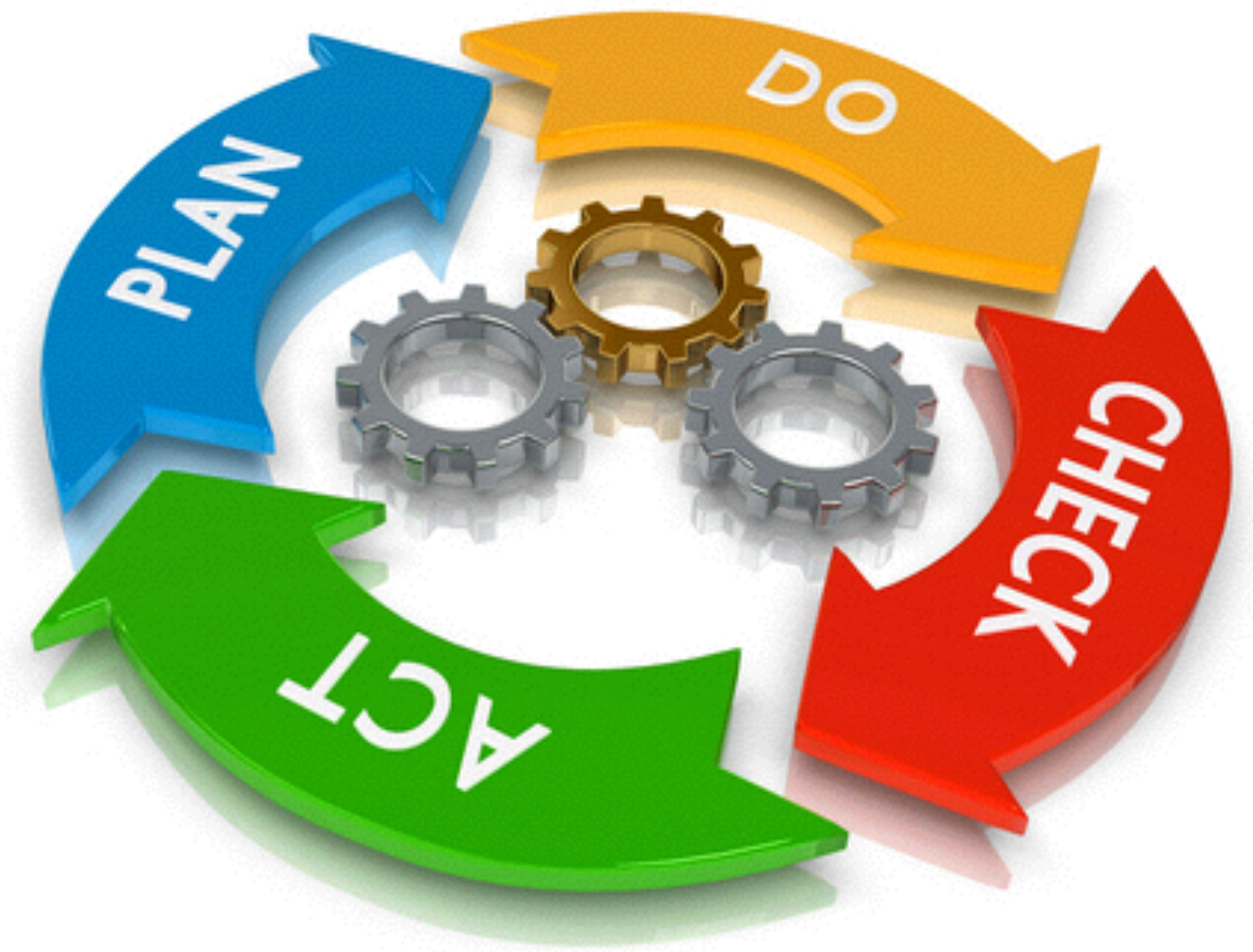
Optional

- **Manager** (support of executive board is essential)
- **Communication alliance**
- **ICT alliance**
- **Education alliance**



Optimal communication between team members

- **Define tasks and roles**
- **Organize meetings**
- **E-mail (no substitute for meetings)**
- **Combined clinical rounds**
- **Planning & Evaluation meetings**



PDCA for quality improvement essential for nutrition teams

Sources in Health Sciences

Primary Sources

Original materials/information on which other research is based. Primary sources are also sets of data, such as health statistics, which have been tabulated, but not interpreted.

- **Journals or Periodicals:** main type of publication in which scientific research is reported.
- **Theses:** detailed accounts of research conducted for the awarding of higher academic degrees. The research is assessed by external examiners before the degree is awarded.
- **Conferences:** Important avenue for reporting new research or developments.
- **Reports:** individual publications reporting research. They may report internal research within an organization, or research done by an individual or organization under contract to a client.
- **Patents:** provides research information on new products or processes. Once published, patent information is freely available, but rarely republished in journal articles.

Secondary Sources

Analyses, evaluates, interprets, re-packages, summarizes or reorganizes information reported by researchers in the primary literature. These include:

- **Review Journals :** These generally start with Annual Review of ..., Advances in ..., Current Opinion in ...
- **Article Reviews :** Articles that summarize the current literature on a specific topic.
- **Textbooks :** These can be either specialized to a narrow topic or a more boarder overview.
- **Data Compilations :** Statistical databases (SEERS), Vital & Health Statistics, etc.
- **Article Indexes/Databases:** These can be abstracting or citation (e.g. Biological Abstracts/MEDLINE).

Tertiary Sources

Primary and secondary source information which has been collected and distilled.

They present summaries of or an introduction to the current state of research on a topic, summarize or condense information from primary and secondary sources, or provide a list of primary and secondary sources of more extensive information.

Examples are:

- Encyclopedias
- Almanacs
- Fact books
- Research Quickstarts/Library

Course Page/Pathfinders

How to keep updated?

- Focus on Primary and Secondary sources
- Medical Literature
- Pubmed alerts (National Library of Medicine)
- Medical congresses and symposia
- Journal clubs
- ClinicalTrials.gov
- Do research
- Medical Service Department companies



Main tasks of MDT

- **Develop an evidence based feeding protocol for the ICU and rationalize components – *e.g.* GRV, when to introduce prokinetics, EN versus PN, when to initiate PN**
- **Describe the advantages of using a feeding protocol and also the limitations**
- **Implement a feeding protocol using a team approach**
- **Discuss the implementation phase and how to measure success of implementing the feeding protocol as part of a regular cycle of clinical audit and practice update**



How to induce change?

- **Create awareness**

Develop a sense of urgency around the need for change. This may help you spark the initial motivation to get things moving. 75 percent of a hospital's management needs to "buy into" the change.

- **Create a team**

Form a Powerful Coalition. Convince people that change is necessary. This often takes strong leadership and visible support from key people within your organization. Managing change isn't enough – you have to lead it.

- **Create vision for change**

When you first start thinking about change, there will probably be many great ideas and solutions floating around. Link these concepts to an overall vision that people can grasp easily and remember. Develop a short summary (one or two sentences) that captures what you "see" as the future of your organization. Ensure that your change coalition can describe the vision in five minutes or less. Practice your "vision speech" often.

- **Communicate the Vision**

Don't just call special meetings to communicate your vision. Instead, talk about it every chance you get. Use the vision daily to make decisions and solve problems. When you keep it fresh on everyone's minds, they'll remember it and respond to it. It's also important to "walk the talk." What you do is far more important – and believable – than what you say. Demonstrate the kind of behavior that you want from others. What you can do: Talk often about your change vision, address peoples' concerns and anxieties, openly and honestly. Apply your vision to all aspects of operations – from training to performance reviews. Tie everything back to the vision.

How to induce change?

- **Remove barriers to change**

Removing obstacles can empower the people you need to execute your vision, and it can help the change move forward.

- **Create Short-Term Wins**

Nothing motivates more than success. Create short-term targets – not just one long-term goal. You want each smaller target to be achievable, with little room for failure.

- **Build on the Change**

Many change projects fail because victory is declared too early. Real change runs deep. Quick wins are only the beginning of what needs to be done to achieve long-term change.

- **Anchor the Changes in Hospital Culture**

Talk about progress every chance you get. Tell success stories about the change process, and repeat other stories that you hear. Include the change ideals and values when hiring and training new staff. Publicly recognize key members of your original change coalition, and make sure the rest of the staff – new and old – remembers their contributions. Create plans to replace key leaders of change as they move on. This will help ensure that their legacy is not lost or forgotten.

More practical

- **Describe current practice**
- **Screen patients on admission**
- **Measure percentage of goals reached (energy/protein delivered)**
- **Develop protocol**



Targeted Physician Education Positively Affects Delivery of Nutrition Therapy and Patient Outcomes

prospective trial of patients (n = 121) assigned to 1 of 2 trauma groups.

The experimental group received targeted education consisting of strategies to increase delivery of early enteral nutrition that included early enteral access, avoidance of nil per os (NPO) and clear liquid diets (CLD), volume-based feeding, early resumption of feeds postprocedure, and charting caloric deficits.

The control group did not receive targeted education but was allowed to practice in a standard ad hoc fashion. Both groups were provided with dietitian recommendations on a multidisciplinary nutrition team per standard practice.

	Experimental group	Control group	P-value
Percentage measured goal calories	30.1 ± 18.5%	22.1 ± 23.7%	0.24
Mean caloric deficit (kcal)	-6796 ± 4164	-8817 ± 7087	0.31
clear liquid diets (CLD) days per patient	0.1 ± 0.5	0.6 ± 0.9	<0.05
ICU length of stay (days)	3.5 ± 5.5	5.2 ± 6.8	<0.05
Duration mechanical ventilation (days)	1.6 ± 3.7	2.8 ± 5.0	<0.05
Nosocomial infections (%)	10.6	23.6	NS
Organ failure	10.6	18.2	NS

Implementation of specific educational strategies succeeded in greater delivery of nutrition therapy, which favorably affected patient care and outcomes.

Implementation Phase

- **Implement protocol**
- **Train on how (not only what or why)**
- **Measure results**
- **Provide feedback to team and management**
- **Show results**



Changing culture

- **Repeat, repeat, repeat**
- **Set new goals**
- **Celebrate success**
- **Everyone likes to be part of winning team**



Conclusions

- **Multidisciplinary teams are essential to improve nutrition practice**
- **As MDTs improve outcome they will reduce costs, also in underfunded healthcare systems**
- **MDTs are expert groups for ICU nutrition**
- **MDTs are the change coalitions for success**
- **Awareness creation, communication, focussing on how, protocol development and implementation, measurement of effects, feedback and changing the culture are essential steps to improve outcome for your patients**
- **and finally.....**

MDTs are fun

