

**Danish Parliament  
Defense Committee  
Deputation  
8 December 2016**

S. R. Noble-Letort, PhD Chairman  
Nordic Integrative Medicine  
[www.nordicintegrativemedicine.com](http://www.nordicintegrativemedicine.com)

**NIM**



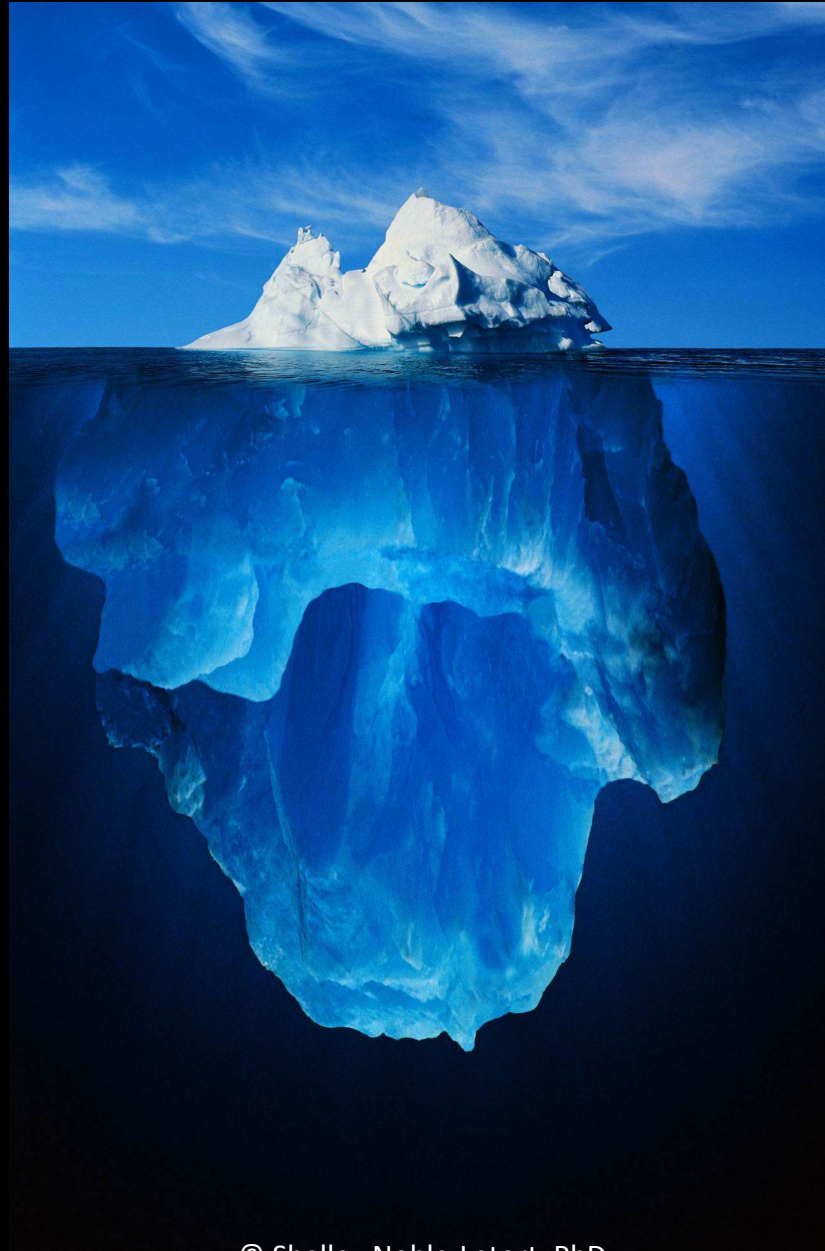
# Nordic Integrative Medicine

NIM

# What is Integrative Medicine?

Integrative Medicine (IM) emphasizes integrated patient care that empowers the patient by addressing the biophysical, emotional, mental, social, existential and environmental influences that affect a person's health and coordinates care with the selected support of a team of integrative practitioners who develop a personalized health plan, which supports the renewal of health and prevention of disease.

**PREVENTION & WELLNESS  
PATIENT-CENTERED  
LIFESTYLE MODIFICATION  
GENETICS IS NOT DESTINY  
COMPASSIONATE CARE  
NEW PARADIGM RESEARCH**



# NIM Center for Integrative Health and Prevention

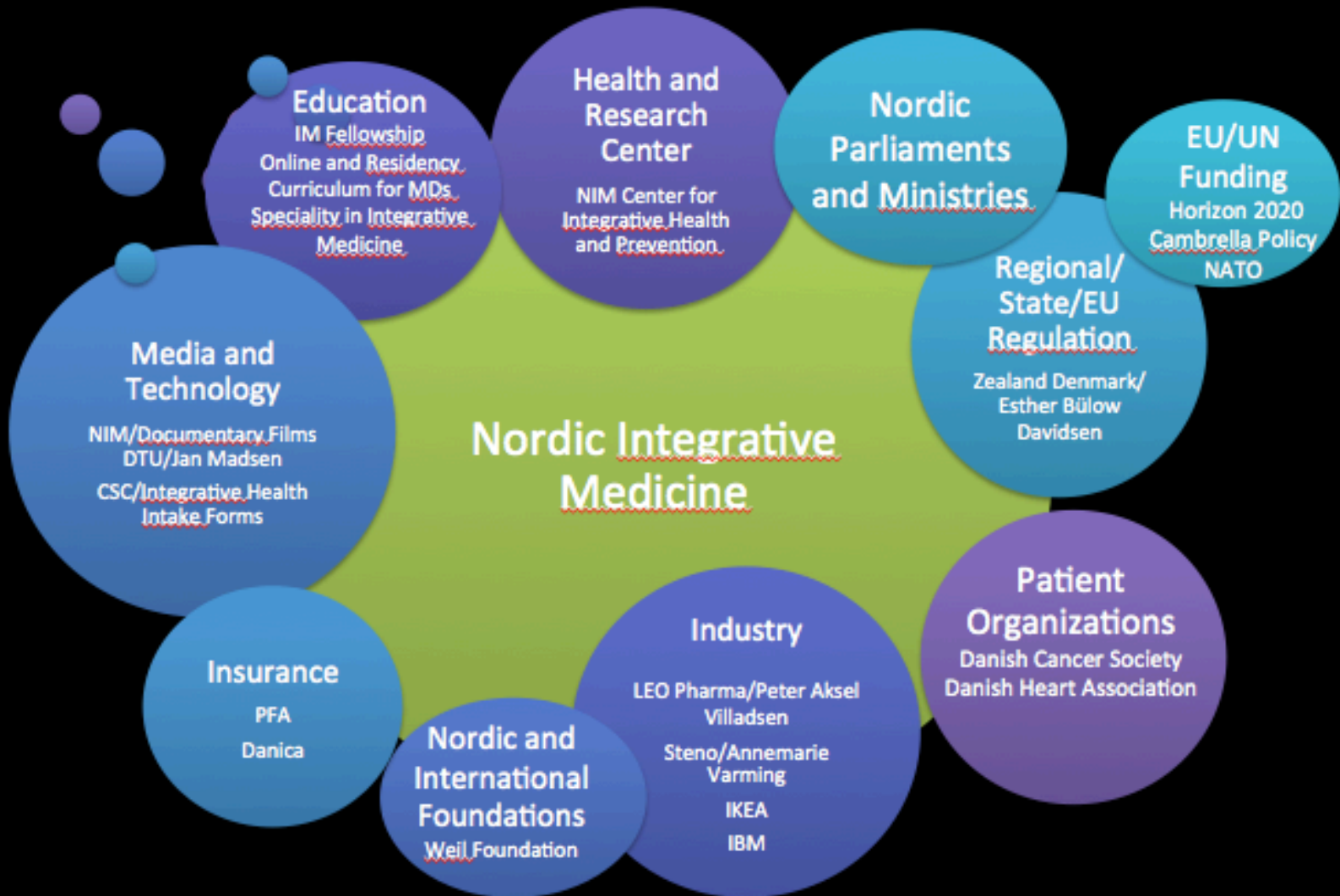
*Moving Healthcare into Sustainability*

|  |  |
|--|--|
| <p><b>HIGH TOUCH</b><br/>Compassionate,<br/>Patient-Empowered<br/>Team-Integrated Healthcare</p> | <p>Time to Talk with<br/>Team of Medical and<br/>Complementary Practitioners</p>   |
| <p>Cost-Effective for Chronic Disease<br/>Management and Prevention</p>                          | <p><b>HIGH TECH</b><br/>Scientific Evidence-Based<br/>Complementary Therapies and<br/>Medicine working with<br/>Conventional Medicine and<br/>Innovative Biotech, Neuroscience<br/>and Genetic Risk Research</p> |



- **Physician Led Integrated Team: Personalized Health Plan**
- **Compassionate Focused Therapy (CFT)**
- **Clinical Nutrition: Garden to Table Nature Therapy**
- **Mind-Body: Yoga Therapy and Music Therapy**

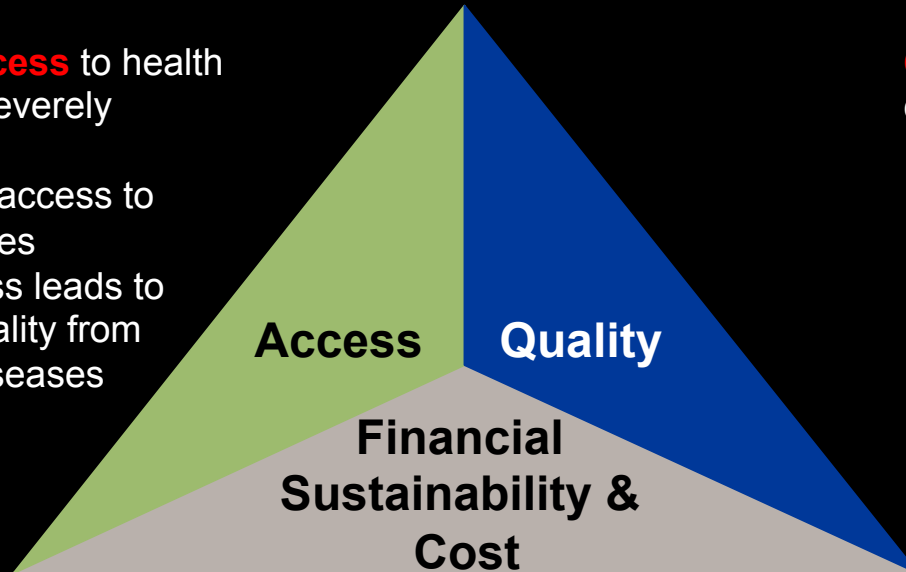




# Challenges in Health Care Delivery

Unfortunately, **access** to health care services is severely limited:

- Many lack access to basic services
- Poor access leads to higher mortality from treatable diseases



**Quality** is an enduring challenge

- Basic standards of medical care a challenge in many developing

The **cost** of delivering health care is unsustainable

- Unsustainable for countries with national healthcare coverage
- Cost of care is catastrophic for families in countries without strong insurance

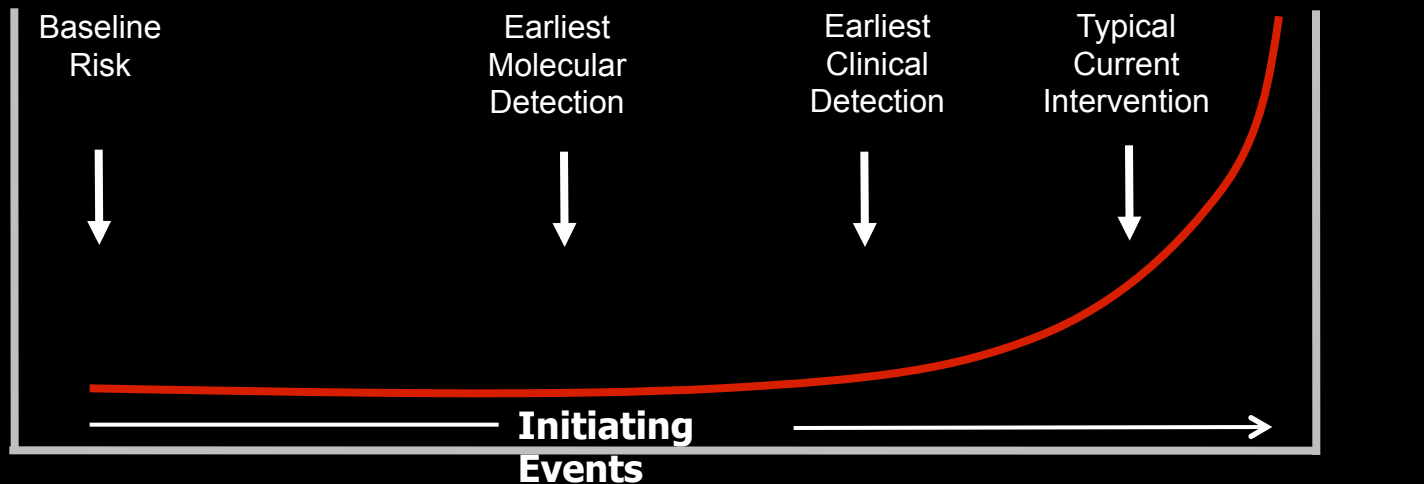
# Epidemiological Disease Burden on Danish Society

|                  | Most common diseases | Most new diagnoses | Most freq. cause of death | Most freq. hospitalization | Cause of early retirement | Cause of sick leave | Cost of treatment |
|------------------|----------------------|--------------------|---------------------------|----------------------------|---------------------------|---------------------|-------------------|
| Diabetes         | 5                    | 1 (b)              |                           |                            |                           |                     |                   |
| Cardio/Vasc.     |                      | 2                  | 1 (c)                     | 2                          |                           |                     |                   |
| Anxiety          |                      | 3                  |                           |                            | 1 (e)                     | 5                   |                   |
| Apoplexi         |                      | 4                  | 3                         |                            |                           |                     |                   |
| Backpain         | 1 (a)                |                    |                           |                            | 3                         | 1 (f)               | 4                 |
| Arthritis        | 2                    |                    |                           | 3                          |                           | 4                   | 2                 |
| Migraine         | 3                    |                    |                           |                            |                           | 3                   |                   |
| Neck pain        | 4                    |                    |                           |                            |                           | 2                   |                   |
| Depression       |                      | 5                  |                           |                            | 4                         |                     |                   |
| Lung cancer      |                      |                    | 2                         |                            |                           |                     |                   |
| Brain hemorrhage |                      |                    |                           |                            | 5                         |                     | 3                 |
| Black lungs      |                      |                    | 4                         |                            |                           |                     |                   |
| Dementia         |                      |                    | 5                         |                            |                           |                     |                   |
| Schizofrenia     |                      |                    |                           | 5                          | 2                         |                     | 1 (g)             |
| Resplr. Dis.     |                      |                    |                           | 1 (d)                      |                           |                     | 5                 |
| Subs. abuses     |                      |                    |                           | 4                          |                           |                     |                   |

(a) 800,000 patients; (b) 29,000 patients; (c) 4,700 patients; (d) 42,000 patients; (e) 1,900 patients; (f) 5.5 million sick-days; (g) DKK 2.6 Bn

# Need for Earlier Intervention

## Development of Disease



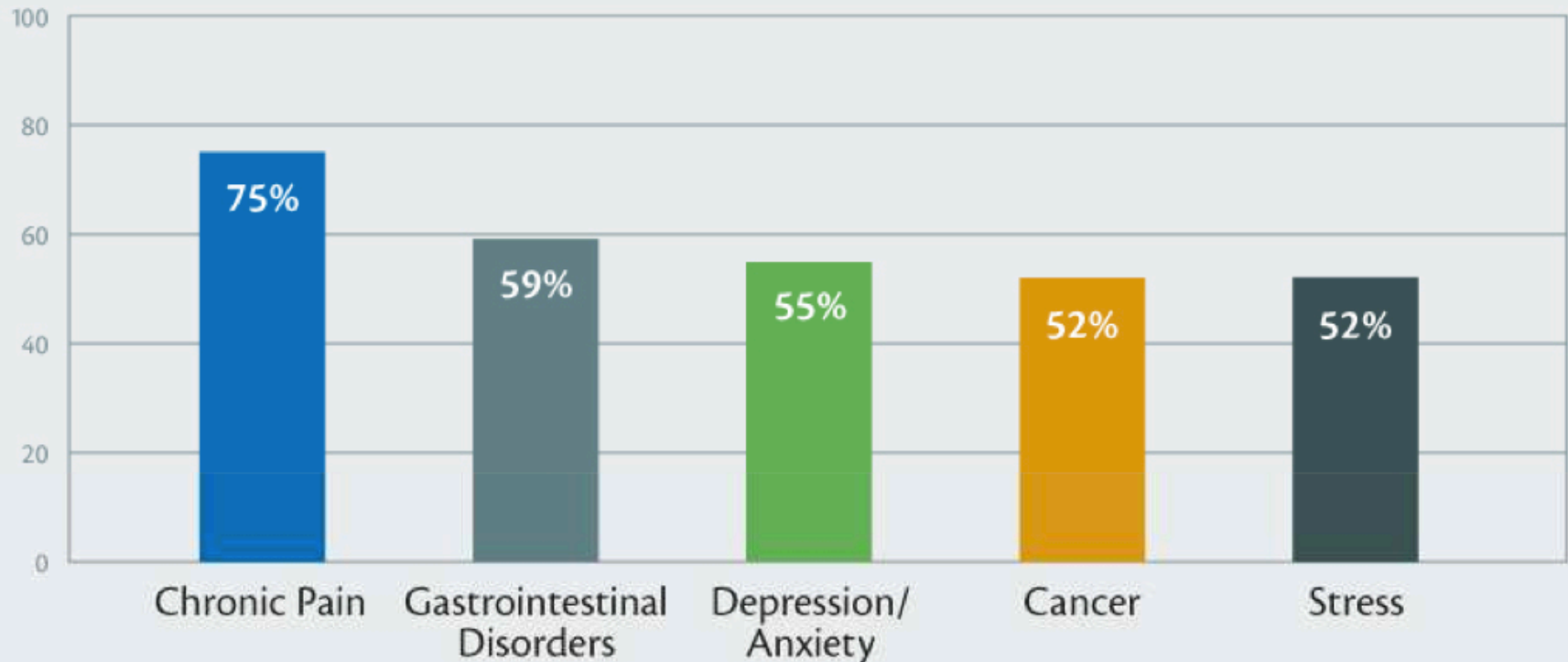
### Personalized Medicine Tools

- Quantify Baseline Risk
- Monitor Progression
- Refine Risk Prediction
- Define Disease
- Monitor
- Personalize Therapy



# IM Clinical Success

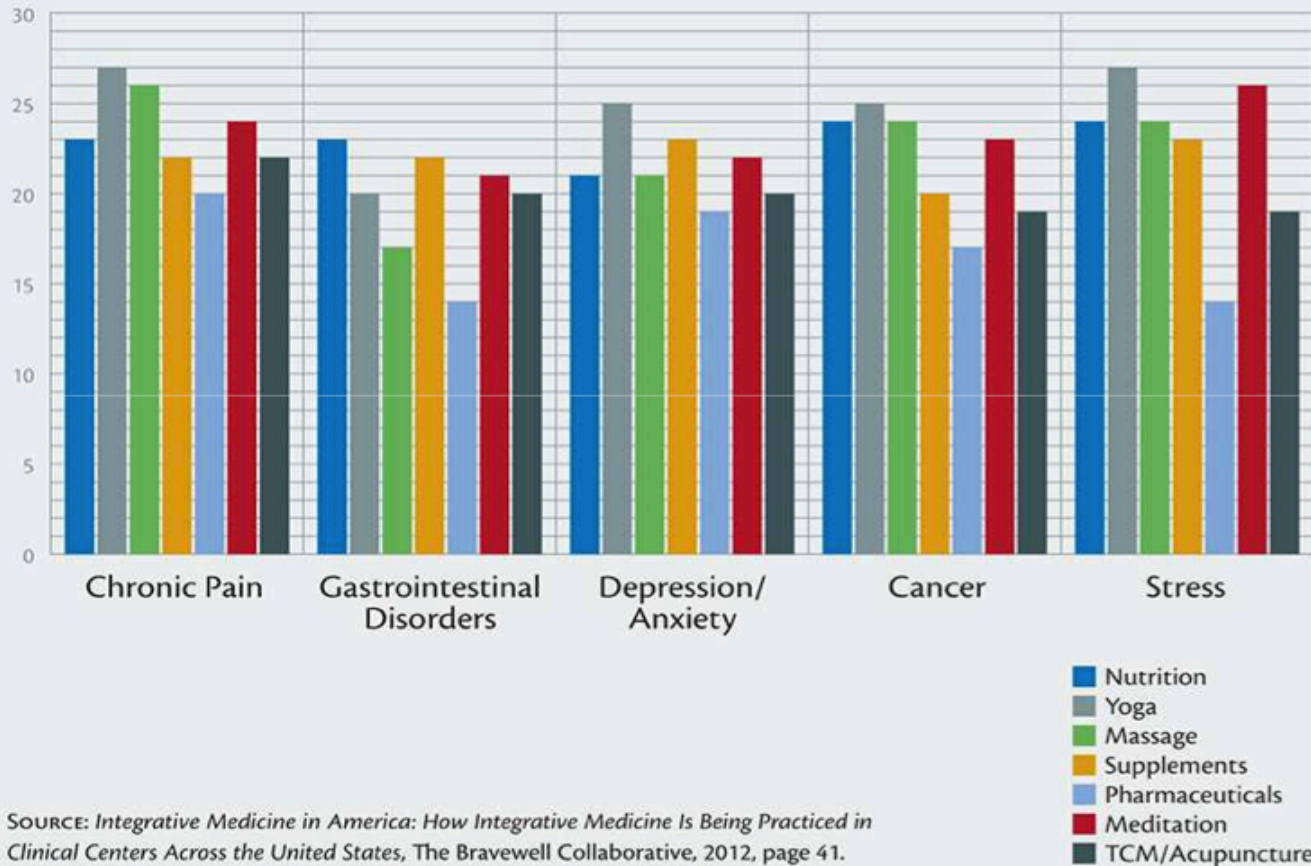
## Conditions for Which the Centers Report the Most Clinical Success



SOURCE: *Integrative Medicine in America: How Integrative Medicine Is Being Practiced in Clinical Centers Across the United States*, The Bravewell Collaborative, 2012, page 34.

# IM Therapies Applied

Therapies Used (by Number of Centers) for the Top Five Conditions



# IM Practitioners Employed

| Percentage of Centers Employing the Following Practitioners Either Full or Part-time: |      |                         |     |
|---|------|-------------------------|-----|
| Physician   | 96%* | Hypnotherapist          | 41% |
| Massage Therapist   | 86%  | Holistic Nurse          | 38% |
| Meditation Instructor   | 83%  | Chiropractor            | 38% |
| Acupuncturist, LAc  | 79%  | Pain Specialist         | 34% |
| MBSR Instructor   | 79%  | Psychiatrist            | 34% |
| Dietician/Nutritionist  | 69%  | Naturopath              | 28% |
| TCM Practitioner  | 62%  | Physical Therapist      | 28% |
| Yoga Instructor   | 62%  | Exercise Physiologist   | 24% |
| Psychologist  | 59%  | Physician Assistant     | 21% |
| Healing Touch/Reiki Practitioner  | 55%  | Health Coach            | 21% |
| Nurse Practitioner  | 55%  | Osteopath               | 21% |
| Acupuncturist, MD   | 48%  | Ayurvedic Practitioner  | 17% |
| Biofeedback Practitioner  | 45%  | Homeopathy Practitioner | 17% |



NORTH ATLANTIC TREATY ORGANIZATION  
SCIENCE AND TECHNOLOGY ORGANIZATION



# **NATO Science and Technology Organisation (STO) Human Factors and Medicine (HFM) Panel**

**NATO Task Force 195:  
Integrative Medicine Interventions for Military Personnel  
NATO-STO-RTG-TR-HFM-195 (2010-2014)**

**COUNTRY COORDINATION  
USA**

**COUNTRIES PARTICIPANTS  
FRANCE  
GERMANY  
HUNGARY  
ITALY  
NETHERLANDS  
USA**



## What is the NATO Science and Technology Organisation (STO) ?

The **NATO Science and Technology Organisation (STO)** promotes and conducts co-operative scientific research and exchange of technical information amongst 28 NATO nations and 38 NATO partners.

The largest such collaborative body in the world, the STO encompasses over 3000 scientists and engineers addressing the complete scope of defence technologies and operational domains.

This effort is supported by an executive agency, the Research and Technology Agency (RTA), that facilitates the collaboration by organising a wide range of studies, workshops, symposia, and other forums in which researchers can meet and exchange knowledge.

## **What is the Mission of the HUMAN FACTORS AND MEDICINE (HFM) Panel ?**

The mission of the **Human Factors and Medicine Panel (HFM)** is to provide the science and technology base for optimising health, human protection, well being and performance of the human in operational environments with consideration of affordability.

This involves understanding and ensuring the physical, physiological, psychological and cognitive compatibility among military personnel, technological systems, missions, and environments.

This is accomplished by exchange of information, collaborative experiments and shared field trials

## **What are the Driving Forces and Objectives of the NATO Task Force 195: Integrative Medicine Interventions for Military Personnel NATO-STO-RTG-TR-HFM-195 (2010-2014)**

More than 50% of the military population, including dependants, have used CAM interventions in recent years, and 66% of active duty personnel use dietary supplements.

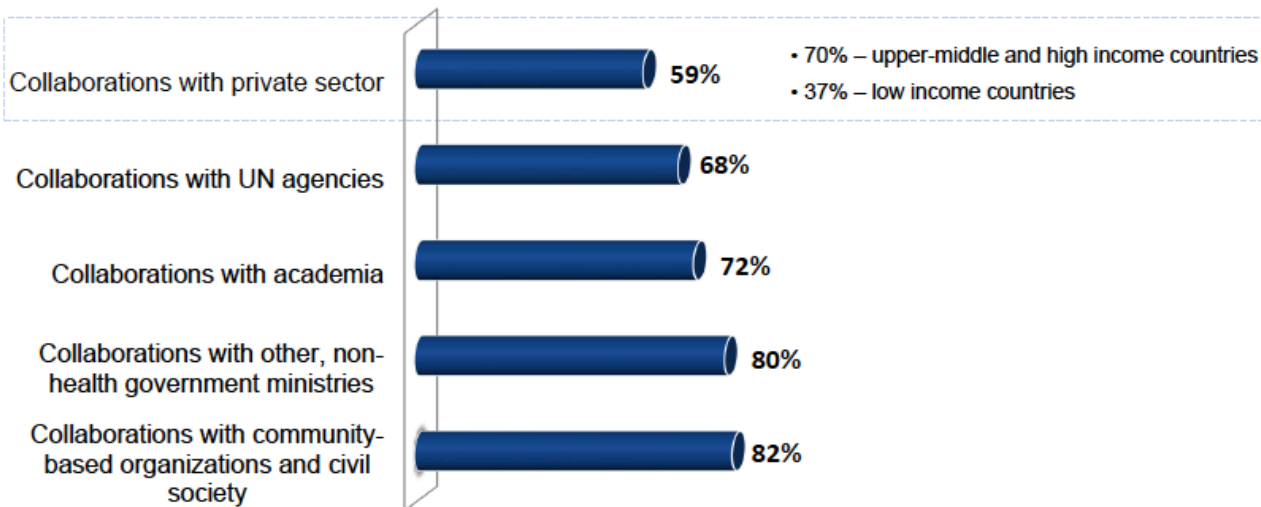
### **Objectives**

- Identify and evaluate countries' data on the use of CAM among military personnel.
- Determine how personnel in each country access CAM interventions (directly or by prescription), and with what frequency.
- Assess how important, accepted, and regulated is the use of CAM in the therapeutic arsenal
- Share all available research on the indications and effects of any type of CAM interventions, as well as any possible adverse effects on military readiness.

# World Economic Forum Innovative Financing: Public-Private Cooperation and Noncommunicable Diseases (NCD)

## Public private collaboration for NCDs

Proportion of member states collaborating with other stakeholders in NCD prevention and control



Source: WHO 2012

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# Re-thinking the ROI of healthy populations will... change the direction of discourse and help to fuel investments into healthy populations

## Why is there a need for re- thinking?

- **Beneficiary stakeholders** of healthy populations have very **different lenses**:
- **Understanding and capturing** those very different benefits is **on top of the agenda** but has not been solved to date

## The status quo of the debate...

- ... does not **facilitate investments**
- ... does not **address the specifics** of multi-stakeholder investments
- ... does not provide a **concept to assess investment opportunities**

## A discussion on the ROI concept...

- ... will **force the debate** about the value of healthy populations
- ... will **assess investment opportunities** in the eco-system of healthy populations
- ... will help to change the discourse to shift **from investments into care to investments into prevention**

# U.S. Air Force & Duke Integrative Medicine Research Collaboration

## Genetic Risk and Health Coaching for Type 2 Diabetes and Coronary Heart Disease

- (U.S. Air Force funded) The purpose of this study is to examine whether the use of genetic test information and/or health coaching in patient risk counseling for heart disease and diabetes affects health behaviors and health outcomes in active-duty Air Force, beneficiaries or dependents and Air Force retiree patients. Participants are being recruited from the David Grant Medical Center at Travis Air Force Base and the McClellan Outpatient Satellite Clinic in California.

[https://www.dukeintegrativemedicine.org/research/  
current-research-studies/](https://www.dukeintegrativemedicine.org/research/current-research-studies/)

# What can the Danish Defense Committee Do?

Collaborate with Health Committee

Create Version 2.0 of NATO Task Force 195

Integrative Health and Prevention (IHP) Expert Committee

STEP 1: Invite NATO Task Force Group to Denmark / Determine Healthcare Needs for Danish Military Personnel/Veterans and Public/Provider (Patients and Healthcare Personnel)

STEP 2: Fund Epidemiological Study (Update Cambrella 2012 Data)

STEP 3: Build the IHP Team

STEP 4: Fund IHP Pilot Study on PTSD for Military Personnel and Veterans (Translational/Interventional)

# Collaborative Actions: Danish Parliament Defense and Health Committees

**ACTION 1: Spring  
2017 -Parliamentary  
Hearing on  
Integrative Health  
and Prevention  
(IHP)**

**ACTION 2: Selecting  
Multipartisan  
Expert Committee  
on IHP**

**ACTION 3: Funding  
Research**

- A. Epidemiological
- B. IHP Pilot Studies  
(NATO/Danish Defense,  
(PTSD) Provider (stress),  
Public (cancer)

**ACTION 4: Funding  
a Center for  
Integrative Health  
and Prevention  
(Clinical and  
Research)**