Exercise is Medicine: A Global Health Initiative
If exercise could be packed in a pill, it would be the single most widely prescribed and beneficial medicine in the nation.

Robert N. Butler, M.D.
Former Director,
National Institute on Aging
“In view of the prevalence, global reach and health effect of physical inactivity, the issue should be appropriately described as pandemic, with far-reaching health, economic, environmental and social consequences.”
Global Epidemic of Inactivity

Figure 6: Deaths attributed to 19 leading risk factors, by country income level, 2004.

The 15 leading causes of death in 2013 were:

1. Heart Disease
2. Malignant neoplasms (cancer)
3. Chronic lower respiratory diseases
4. Cerebrovascular diseases (stroke)
5. Accidents (unintentional injuries)
6. Alzheimer’s disease
7. Diabetes
8. Nephritis, nephrotic syndrome and nephrosis (kidney disease)
9. Influenza and pneumonia
10. Intentional self-harm (suicide)
11. Septicemia
12. Chronic liver disease and cirrhosis
13. Essential hypertension and hypertensive renal disease
14. Parkinson’s disease
15. Pneumonitis due to solids and liquids
Cardiorespiratory Fitness & Mortality

All-Cause Death Rates by CRF Categories – 3,120 Women and 10,224 Men

Age adj death rate/10,000 PY

Cardiorespiratory Fitness Level

Blair SN. JAMA 1989
Effect of CRF on Mortality

Attributable Fractions (%) for All-Cause Deaths

40,842 men & 12,943 women from the Aerobic Cooper Longitudinal Study

Exercise is a Medicine

Physicians should prescribe it, Patients should take it!

• Instead of an allergy, exercise may be the long sought vaccine to prevent chronic disease and extend life

Are we reaching a point where NOT prescribing physical activity should be considered patient neglect?
Do You Really Think We have a Chance Without Exercise?

- Obesity
- Coronary artery disease
- Diabetes
- Hypertension
- Cancer
- Depression and anxiety
- Arthritis
- Osteoporosis
- Etc, etc, etc...

No!
We have to get people moving

Regularly Active
Out of the chair & off the couch
Engaged in an Active, Healthy Lifestyle
What if there was one prescription that could prevent and treat dozens of diseases, such as diabetes, hypertension and obesity…

Would you prescribe it to your patients?

Certainly!

- Robert E. Sallis, M.D., FACSM, EIM Global Center Chairman
Exercise is Medicine® is a global initiative to establish physical activity as a standard in healthcare.

EIM’s Goal is Transformational Change

- To institutionalize physical activity assessment & prescription into Global Healthcare Systems
Exercise is Medicine (EIM) Global Health Initiative

Presence

Key

- No EIM presence
- EIM presence
- EIM Regional Centers

Countries with EIM presence:
- USA
- Canada
- Mexico
- Costa Rica
- Brazil
- Ecuador
- Colombia
- Venezuela
- Argentina
- Chile
- Uruguay
- Paraguay
- South Africa
- Ghana
- Kenya
- South Africa
- China
- Russia
- Turkey
- Germany
- Spain
- Portugal
- UK
- Switzerland
- Austria
- Hungary
- Norway
- Sweden
- Norway
- Sweden
- China
- Singapore
- Kuwait
- UAE
- Lebanon
- Israel
- Puerto Rico
- Aruba
- Netherlands
- Greece
- Austria
- Hungary
- Qatar
- Jordan
- United Arab Emirates
- Lebanon
- Israel

Countries without EIM presence:
- Mexico
- Costa Rica
- Brazil
- Ecuador
- Colombia
- Venezuela
- Paraguay
- South Africa
- Ghana
- Kenya
- China
- Russia
- Turkey
- Germany
- Spain
- Portugal
- UK
- Switzerland
- Austria
- Hungary
- Norway
- Sweden
- China
- Singapore
- Kuwait
- UAE
- Lebanon
- Israel
- Puerto Rico
- Aruba
- Netherlands
- Greece
- Austria
- Hungary
- Qatar
- Jordan
- United Arab Emirates
- Lebanon
- Israel
The Exercise is Medicine® Solution

Three basic modules are necessary to establish physical activity as a standard in healthcare
Health Care Providers adopt the EIM Solution by integrating and implementing the clinician module (steps 1-3).
1. **Physical Activity Assessment**
   Clinicians and their healthcare team assess physical activity levels during every patient visits.

2. **Physical Activity Prescription**
   Utilization of simple, fast, and effective tools for prescribing physical activity in the right “dose” for the prevention, treatment and management of chronic medical conditions.

3. **Referral to a Physical Activity Network**
   Providing a list of programs, places, and professionals that offer the patient a selection of options that meet their individual needs and personal preferences to fill their physical activity prescription.
Physical activity can be quickly and efficiently assessed in the clinic setting through the use of the Physical Activity Vital Sign (PAVS).

The PAVS is a simple 2 item questionnaire that can determine weekly minutes of moderate intensity physical activity.

Healthcare teams can then assess whether patients are meeting national physical activity recommendations and adjust their treatment accordingly.

The PAVS is most effective when embedded as a “vital sign” in the electronic medical record (EMR).
4/22/2009 visit with TEST DUMMY MD

Allergies: Sulfa Class, Acarbose, 5-alpha Reductase Inhibitors, Acetaminophen + Propoxyphene Napsylate

Last Vitals:
- BP: 120/80
- P: 60
- T:
- Resp: 22
- W: 190 lbs (86.185 kg)
- H: 5'10" (1.778 m)

BMI: 27.26 kg/m², BSA: 2.06 m², Exercise Vitals: 180 mins/wk

Exercise Vitals - Exercise Vitals (SHIFT+F6 to enter comments)

- Instant Taken:
  - Date: 4/30/2009
  - Time: 1149

Exercise Level of Effort

- Days per week of moderate to strenuous exercise (like a brisk walk):
  - 0, 1, 2, 3, 4, 5, 6, 7

- On average, minutes per day of exercise at this level:
  - 10, 20, 30, 40, 50, 60, 90, 120, 150 or greater

Review Exercise Vitals

Mark as Reviewed

Last Reviewed by SHARMA, PANKAJ on 4/24/2009 at 12:36:26 PM

Medication Documentation

Current Prescriptions

- ATENOLOL 100 MG ORAL TAB
  - TAKE 1 TABLET ORALLY DAILY

- ATENOLOL 100 MG ORAL TAB
  - 1 TAB PO DAILY

Taking?  Start Date  End Date
2. Physical Activity Prescription

Healthcare professionals provide their patients with a prescription as a first step in promoting physical activity to their patient.

- Using the results from the PAVS, healthcare providers can provide the patient with an appropriate physical activity prescription.
- Physical activity prescriptions are based on both identified health risks and American College of Sports Medicine (ACSM) evidence-based guidelines.
- Prescriptions can be provided to each patient through the use of EIM prescription pads or web-based tools.
- Prescriptions can then be filled through referral to existing community resources.
An Electronic Physical Activity Prescription Tool
Your Prescription for Health Series

**Exercising with Arthritis**

Getting Started:
- Talk with your doctor.
- Set realistic goals.
- Exercise at least 3 days a week.
- Start slowly and increase gradually.
- Be patient with your progress.

Exercise Cautions:
- Avoid overexertion.
- Avoid doing the wrong exercise.
- Avoid activities that cause pain.

IN THE SERIES:
- Cardiovascular Diseases
- Pulmonary Diseases
- Metabolic Diseases

For more information, visit www.exerciseismedicine.org.

**Exercising with Multiple Sclerosis**

Getting Started:
- Talk with your health care provider before starting an exercise program and ask for specific program recommendations.
- Take all medications as recommended by your physician.
- The goals of your program should be to improve your functional capacity and ability to perform activities of daily living, including strength and endurance, improve range of motion, and reduce your risk of injury.

Exercise Cautions:
- Be aware of potential symptoms.
- Exercise cautiously.

IN THE SERIES:
- Cardiovascular Diseases
- Pulmonary Diseases
- Metabolic Diseases

For more information, visit www.exerciseismedicine.org.

**Exercising with Parkinson’s Disease**

Getting Started:
- Talk with your health care provider before starting an exercise program and ask for specific program recommendations.
- Take all medications as recommended by your physician.
- Regular physical activity can also help improve your balance and coordination, and enhance your overall quality of life.

Exercise Cautions:
- Be aware of potential symptoms.
- Exercise cautiously.

IN THE SERIES:
- Cardiovascular Diseases
- Pulmonary Diseases
- Metabolic Diseases

For more information, visit www.exerciseismedicine.org.

Support for this Exercise is Medicine® Global Initiative is provided by: Coca-Cola, ExerCare, Focus Fitness, 3P, and Klik. For more information, visit www.exerciseismedicine.org.
Healthcare Systems

3. Physical Activity Referral
Healthcare teams refer their patients to existing resources to support their efforts to become more active.

- Healthcare providers help their patients fill their exercise prescription by referring them to existing community resources.
- This may include directing patients to self-managed physical activity programs that can be performed independently.
- Other patients may need more structured programs that meet their individual health risks, abilities, and environmental needs.
- Existing community resources, such as certified programs, conducted at recognized places, hosted by credentialed professionals, may better engage patients in lifestyle modification strategies.
Referrals to qualified PA programs delivered by credentialed EIM Professionals at EIM recognized places
No patient should leave a physician’s practice without:

An assessment of their current physical activity levels

- and -

A physical activity prescription and referral to qualified resources for further counseling.
Existing **Community Resources** are utilized to support patients in increasing their physical activity levels (step 4).
Community Resources

4. Establishing a Physical Activity Referral Network

Providing patients with convenient, local access to credentialed EIM Professionals, EIM qualified PA Programs and EIM recognized Places

• Utilizing existing community resources to create a physical activity referral network to serve at-risk community population groups including those who suffer from obesity, sedentary lifestyles, and may have chronic diseases and conditions.

• Training professionals in the community and developing specialized programs to provide assistance for referred patient.

• Serving as a trusted referral source to which healthcare providers can send their at-risk patients.
PA Intervention Advisors

• The role of the PA Intervention Advisor is to serve as a link – a middle person - between the healthcare team and the existing community resources

• Some systems may not have or use PA intervention advisors, but these professionals can serve as key “links” encouraging patients to follow through on their “prescription”

• PA intervention advisors may also be particularly useful in engaging hard-to-reach, at-risk patients and empowering them to be more physically active
Credentialed EIM Professionals

- Certification of exercise and fitness professionals who are trained to work with at-risk populations
- Trained to deliver multi-faceted physical activity programs that include structured physical activity, as well as lifestyle modification strategies
- May also support self-management programs
- Credentialed to work with either low, moderate, or high risk patients to meet the high standards required by healthcare providers and payers
Qualified PA Intervention Programs

Structured PA, health education and lifestyle change strategies designed that:

• Prevent and manage non-communicable chronic diseases
• Combat obesity and sedentary lifestyles
• Extend therapeutic and rehabilitative care
Recognized EIM Places

Safe and convenient locations in the community for at-risk population groups to participate in PA programs

- Municipal Community Centers
- Park & Recreational Facilities
- Hospital Wellness Centers
- Medical Fitness Facilities
- YMCA Facility Locations
- Physical Therapy Clinics
- Commercial Health Clubs
- School System Facilities
- Corporate Health Centers
- Other Appropriate Spaces
EIM Solution = Building a Bridge of *Trust* between Healthcare Stakeholders and Community Resources
**Active Health Outcomes** uses the power of technology for tracking participation, conducting assessments and reporting (step 5)
EIM Solution: Utilizing Technology

Armed with leading edge technology, EIM Professionals effectively deliver PA programs, promote and track participation, conduct assessments and report measurable individual and aggregate outcomes.
Active Health Outcomes

Usable, clear, easy-to-read graphs and charts showing outcome analytics that link back to the health care provider enable educated decisions concerning participation in physical activity programs.
Usable, clear, easy-to-read graphs and charts showing outcome analytics that link back to the health care provider enable educated decisions concerning participation in PA programs.

1. Enrollment
2. Prescription
3. Referral
4. Delivery
5. Participation
6. Assessments
7. Collection
8. Outcomes

Active Health IT Platform (engagement to outcomes)
Healthcare Payers reimburse eligible patients, employees & beneficiaries to participate in the EIM Network.

EIM impacts Public Health by assisting the underserved to participate in the EIM Network.

Intervention Advisors/Navigators assist patients with:
- Enrollment
- Assess Readiness
- EIM Prescription
- EIM Referral

Qualified PA Intervention Programs delivered at recognized Places by credentialed EIM Professionals.

EIM Network
Shared by Providers, Payers and Public Health to provide a critical mass of community participation in PA programs.
The EIM Solution

The EIM Solution begins with the engagement of Healthcare Providers and Payers sending at-risk Populations to an EIM Network for participation in culturally-adapted, specialized physical activity intervention programs.