

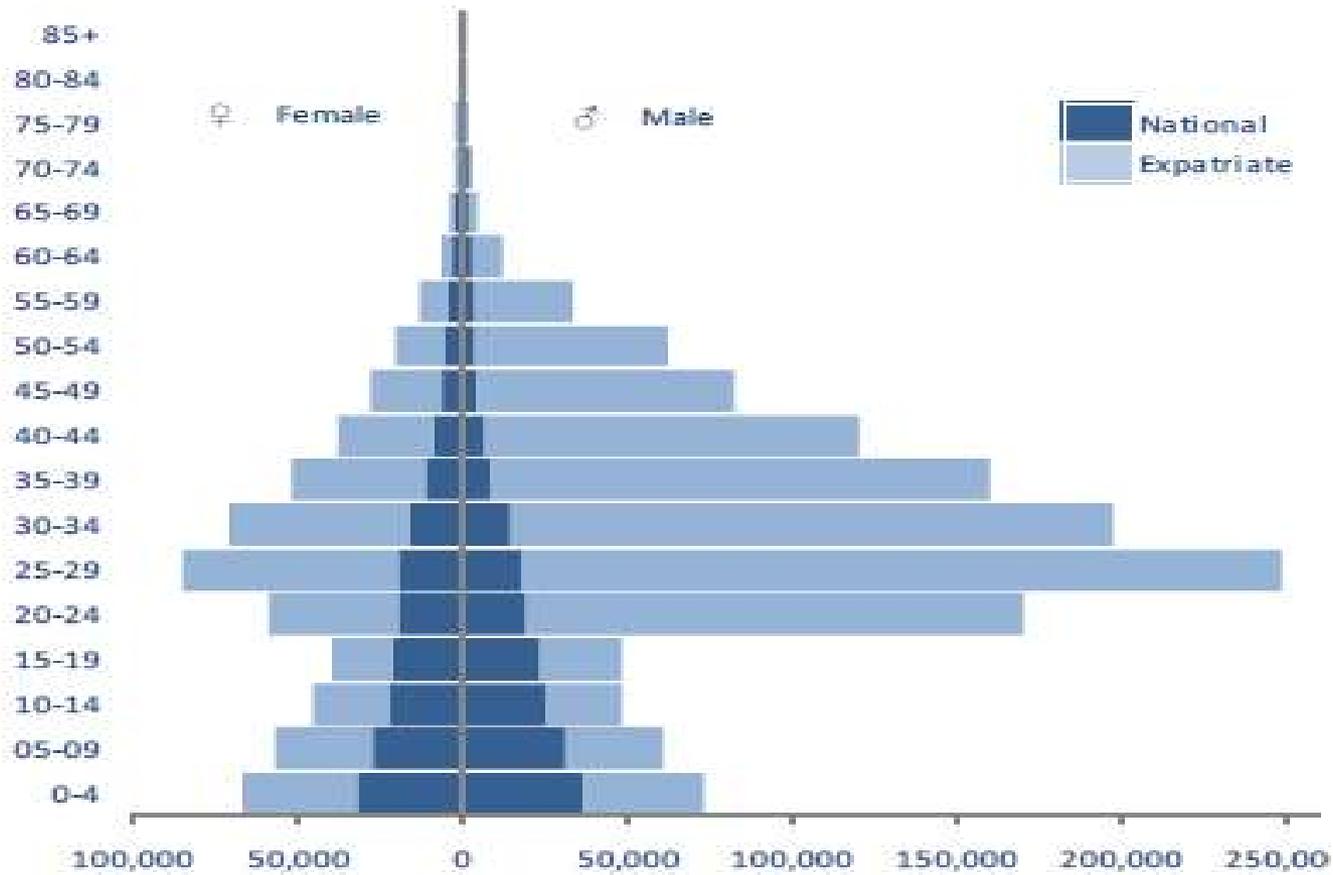


# Public Health Measurements in preventing vitamin D deficiency

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# Objectives

- HAAD/ Public Health Department Priorities
- Micronutrient deficiencies
- Meta analysis on vitamin D (to be added later and presented in the conference)
- Sources of Vitamin D
- Public Health Nutrition Programs



Achievable impact on Abu Dhabi\*

High	① ②	③ ⑥	
	⑧ ⑤	④ ⑦	⑨
			⑩
	Harder	Medium	Easier

Relative ease of implementation

### Priority areas for initiatives

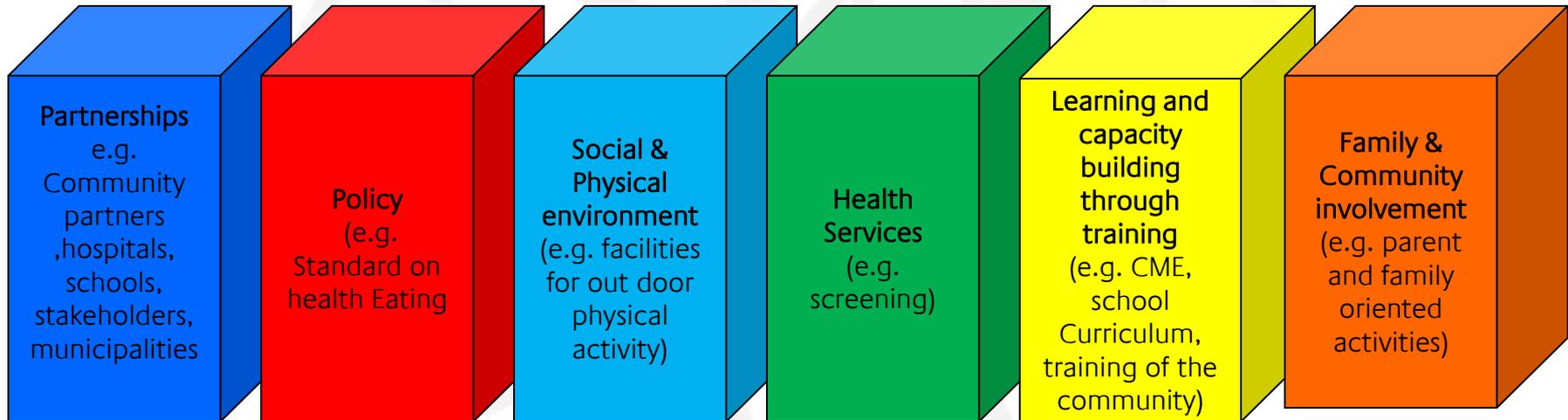
- ① CVD prevention and management
  - 1.1 CVD Prevention: Unhealthy lifestyle
  - 1.2 CVD Prevention: Obesity
  - 1.3 CVD Prevention: Diabetes
  - 1.4 CVD Prevention: Hypertension
  - 1.5 CVD Management
- ② Road safety
- ③ Tobacco control
- ④ Cancer control: Colon, cervix and prostate
- ⑤ Mental health
- ⑥ Mother, infant and school health
- ⑦ Musculoskeletal health
- ⑧ Occupational and environmental health
- ⑨ Infectious diseases: MDRO and surveillance
- ⑩ Oral health

\* "Achievable impact" combines prevalence, severity, gap between current Abu Dhabi and international best practice, and availability of (an) evidence-based intervention(s)

# Public Health framework is based on global best practice



Healthy communities, healthy lives

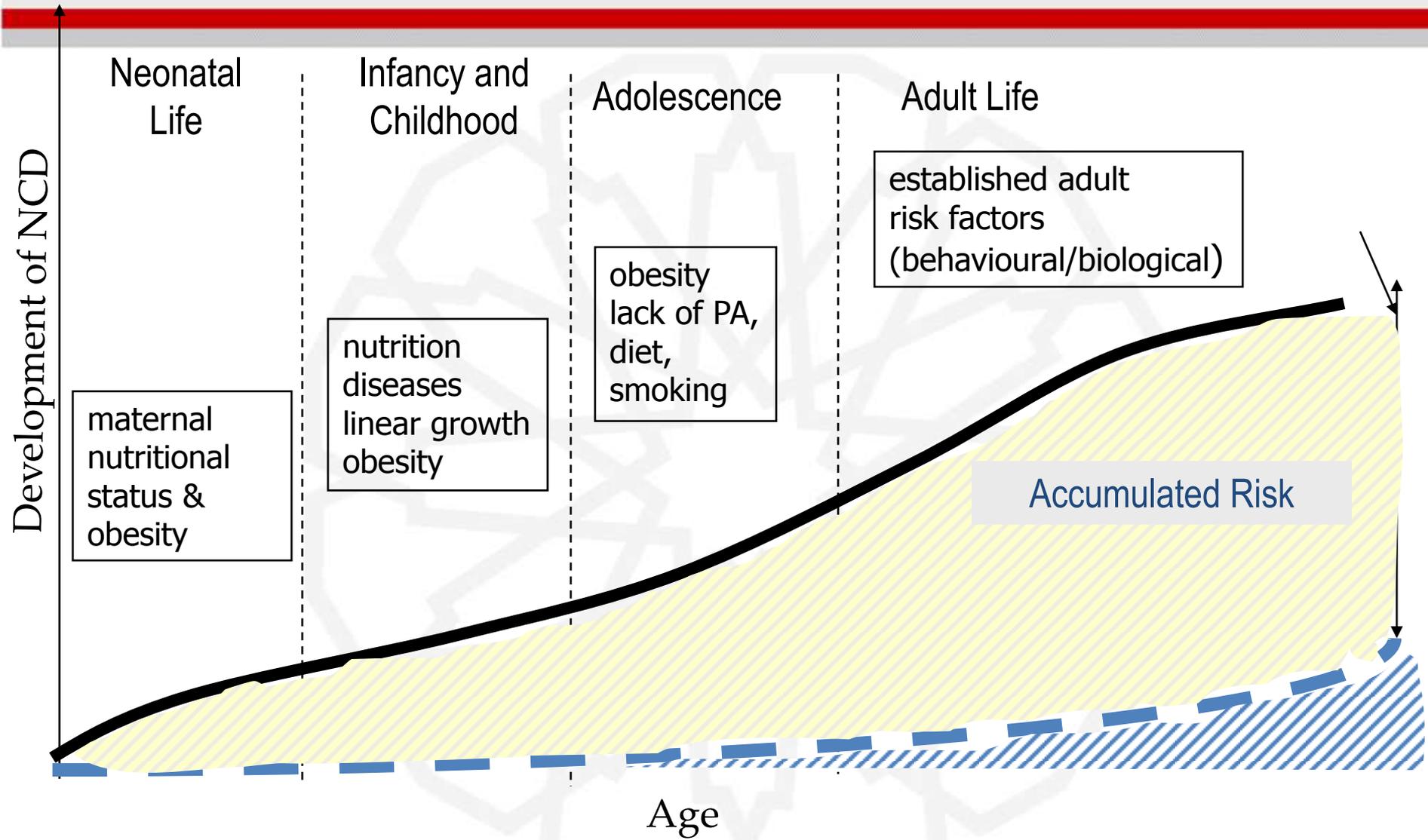


Data

Clear Strategy with defined priorities and measurable outcomes

Good Governance

# Life Course Approach



Low birth weight & compromised body composition

Societal and environmental factors

Reduced capacity for care

Elderly malnutrition

Fetal & infant malnutrition

Impaired mental development

Inappropriate feeding practices

Frequent infections

Inappropriate food, health & care (including untimely/inappropriate complementary feeding)

Inadequate catch up growth

Rapid growth

Child malnutrition

Reduced intellectual potential & reduced school performance

Obesity  
Abdominal obesity  
Diabetes, CVD

Inadequate fetal nutrition

Inappropriate food, health & care

Inappropriate food, health & care

Adult malnutrition  
Pregnancy  
Low weight gain

Higher maternal mortality

Inappropriate food, health & care

Adolescent malnutrition

Reduced intellectual potential & reduced school performance

**Lifecycle course causal links**

Source: Darnton-Hill, Nishida & James, 2002 (adapted)

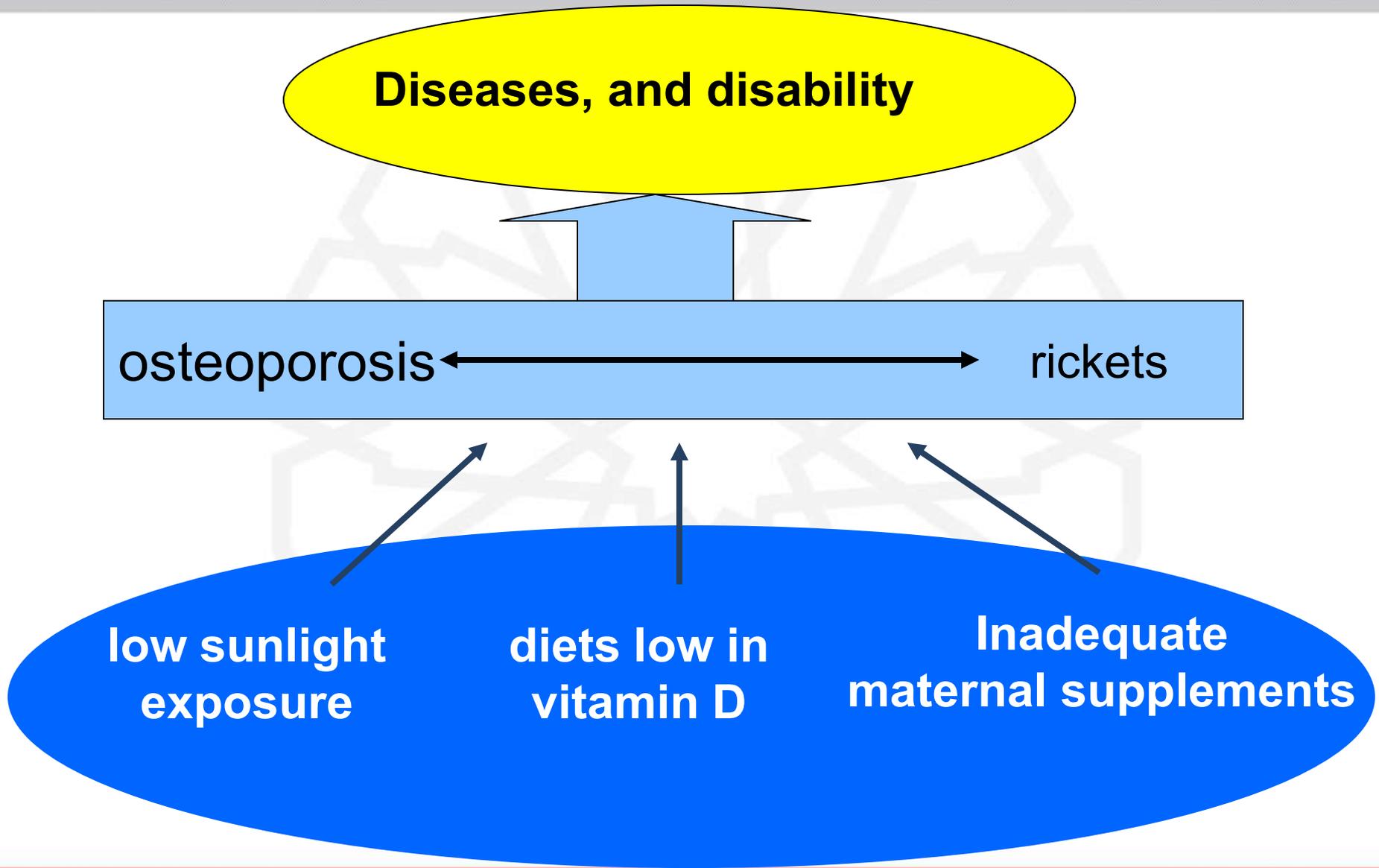
# Micronutrient deficiencies

- **Iodine** is critical for thyroid function – deficiency results in cretinism, goiter and delayed development
- **Iron** is critical for blood and muscles – deficiency results in anemia
- **Vitamin A** is critical for visual development – deficiency results in blindness
- **Vitamin D OUR TOPIC FOR TODAY – is critical for Bone Development**

# Vitamin D Deficiency: Rickets



# Vit D Deficiency



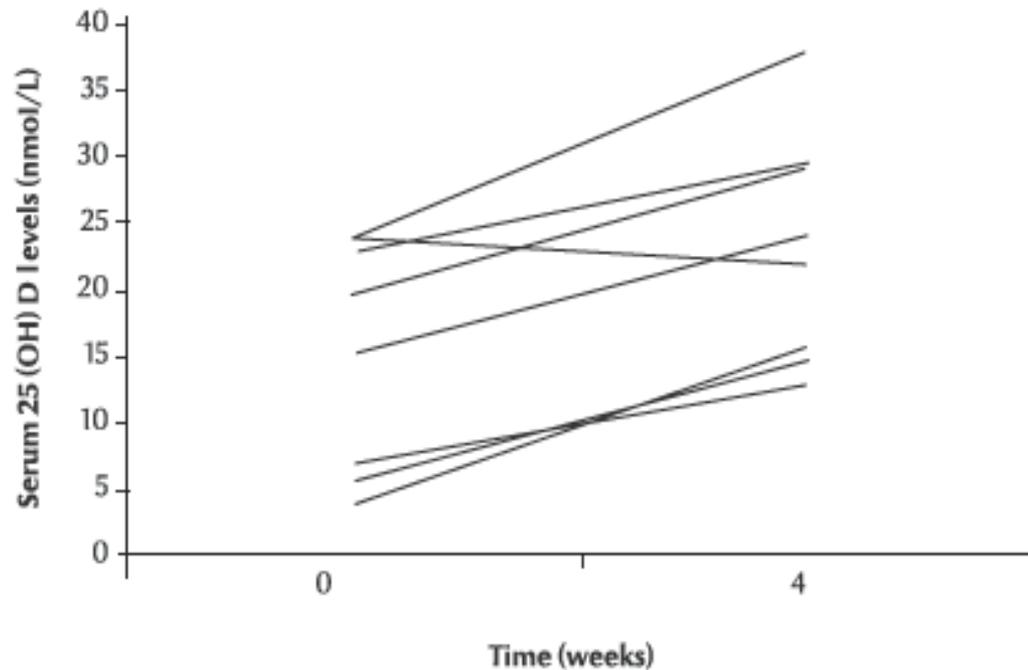
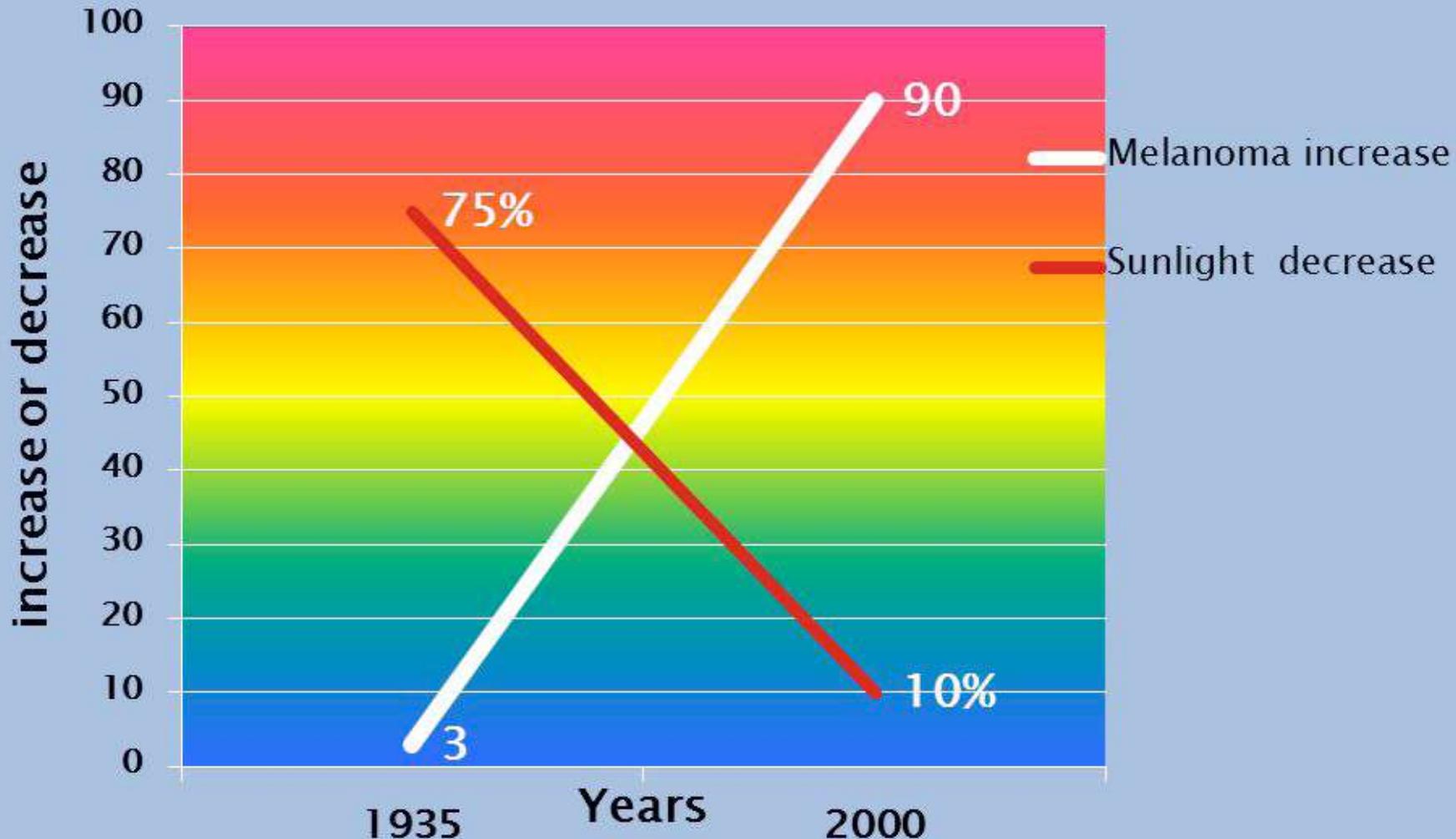


Figure 1 Individual changes in the 8 women's serum 25-hydroxyvitamin D [25(OH)D] concentrations after 4 weeks of exposure to sunlight for 30 minutes per week ( $n = 8$ )

Source: A. Dawodu, J. Kochiyil and M. Altaye , (July, 2011) Pilot study of sunlight exposure and vitamin D status in Arab women of childbearing age. EMHJ Volume 17 No.7

# Sun Exposure

## Melanoma Increase vs. Sunlight Decrease 1935–2000



# Source of vitamin D in foods

- Fish liver oils
- Fatty fish (Salmon)
- Eggs from hens that have been fed with vitamin D
- Fortified cereals
- Fortified milk products
- Fortified orange juice
- Fortified vegetable oils

# Fortification



# Reading the Label

## Nutrition Facts

Serving Size 1 cup (228g)  
Servings Per Container 2

### Amount Per Serving

**Calories** 250      Calories from Fat 110

### % Daily Value\*

<b>Total Fat</b> 12g	18%
Saturated Fat 3g	15%
Trans Fat 3g	
<b>Cholesterol</b> 30mg	10%
<b>Sodium</b> 470mg	20%
<b>Potassium</b> 700mg	20%
<b>Total Carbohydrate</b> 31g	10%
Dietary Fiber 0g	0%
Sugars 5g	
<b>Protein</b> 5g	
<b>Vitamin A</b>	4%
<b>Vitamin C</b>	2%
<b>Calcium</b>	20%
<b>Iron</b>	4%

\* Percent Daily Values are based on a diet of other people's secrets. Your Daily Values may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Start here

Calories

Have more

Have less

# The Eat Right & Get Active Campaign

## Eat Right & Get Active



The graphic features a central image of a young boy in a white thobe and a young girl in a red dress standing next to a basket of fresh vegetables. To their left is a large, colorful diagram of a human body with food icons placed inside different sections, representing various food groups. Below this diagram are five categories in Arabic: الفواكه (Fruits), الخضراوات (Vegetables), الحبوب والخبز (Grains and Bread), الحليب ومنتجاته (Milk and Dairy), and اللحم ومنتجاته (Meat and Seafood). To the right of the children is the 'eat RIGHT get ACTIVE' logo, which includes illustrations of children playing and eating. Below the logo are two buttons: 'EVALUATION TOOLS' and 'DOWNLOAD MANUAL'. In the bottom right corner, there is a small image of a manual titled 'eat RIGHT get ACTIVE' in English. The Health Authority - Abu Dhabi logo and name are also present in the top right corner of the graphic area.



### WAYS TO TAKE ACTION

Healthy eating patterns in childhood and adolescence are a major protective health factor as it.

[KNOW MORE](#)



### HEALTH FACTS

The Health statistics of the Emirate of Abu Dhabi show that many people are affected by diseases

[KNOW MORE](#)



### DOME

This is just a dummy text on this page Quisque dolor ante, sodales at tincidunt

[KNOW MORE](#)

### SCHOOL CANTEEN GUIDELINES



### Monthly Newsletter

Coming Soon

### DVD ANIMATION

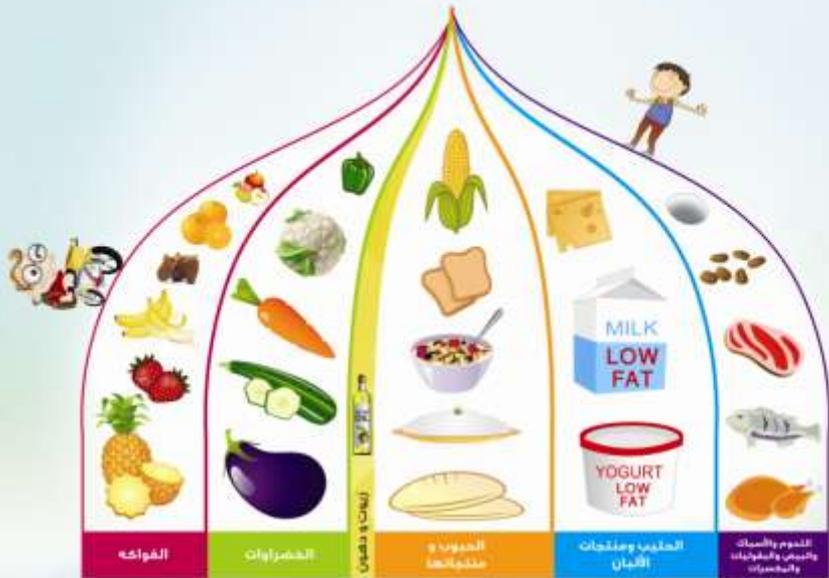




هيئة الصحة - أبوظبي  
HEALTH AUTHORITY - ABU DHABI



# صحتي غذائي ونشاطي



النشاط البدني: 60 دقيقة من النشاط البدني الإجمالي يوميا.

www.haad.ae/schoolsforhealth



Presenting easy to follow guidelines for Students and their parents to follow

معايير المقاصف المدرسية في إمارة أبوظبي

العام الدراسي ٢٠١١ - ٢٠١٢



الإمارات العربية المتحدة

٣٠ مايو ٢٠١١



مجلس أبوظبي للتعليم  
Abu Dhabi Education Council  
التعليم أولاً Education First



جهاز أبوظبي لرقابة الغذائية  
Abu Dhabi Food Control Authority



هيئة الصحة - أبوظبي  
HEALTH AUTHORITY - ABU DHABI

## احتياجات الطلبة للعناصر الغذائية الأساسية حسب الفئة العمرية

### أ- الإحتياجات لوجبة الغذاء

يجب أن يوفر للطلبة ثلاث أو أربع مكونات من الأغذية المتنوعة التي يتوفر في مجموعها ما يعادل التالي:

المرحلة الدراسية	الروضة - الصف الثالث	الصف الرابع - السابع	الصف السابع - الثاني عشر
السعرات الحرارية	٦٣٣	٧٨٥	٨٢٥
البروتين (جرام)	٩	١٥	١٦
الكالسيوم (مجم)	٢٦٧	٣٧٠	٤٠٠
الحديد (مجم)	٣,٣	٤,٢	٤,٥
فيتامين أ	٢٠٠	٢٨٥	٣٠٠
فيتامين د (مجم)	١٥	١٧	١٨

# Future Plans & Recommendations

- Food Consumption survey
- Nutrition Guidelines
- Implement and monitoring for food fortification
- Initiate consumer awareness and encouraging adequate sun exposure

الوقاية خيرٌ من العلاج  
Prevention is the best cure

