

# **THE DRIs IN REVIEW**

**LESSONS THAT SHOULD  
BE LEARNED  
CHALLENGES THAT MUST  
BE MET**

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# MAJOR DRI CONTRIBUTIONS

COMPREHENSIVE LITERATURE REVIEWS

RECOGNITION THAT ALL APPLICATIONS  
INVOLVE DISTRIBUTIONS.

RECOGNITION OF CRITICAL ROLE OF  
THE EAR IN APPLICATIONS.

INTRODUCTION OF THE UL. CRITICAL TO  
APPLICATIONS

**WE MUST BUILD ON THESE  
CONTRIBUTIONS AND MOVE  
FORWARD**

# A CRITICAL RECOGNITION

THE SOLE PURPOSE OF THE DRIs IS  
TO APPLY THE SCIENCE OF  
NUTRITION.

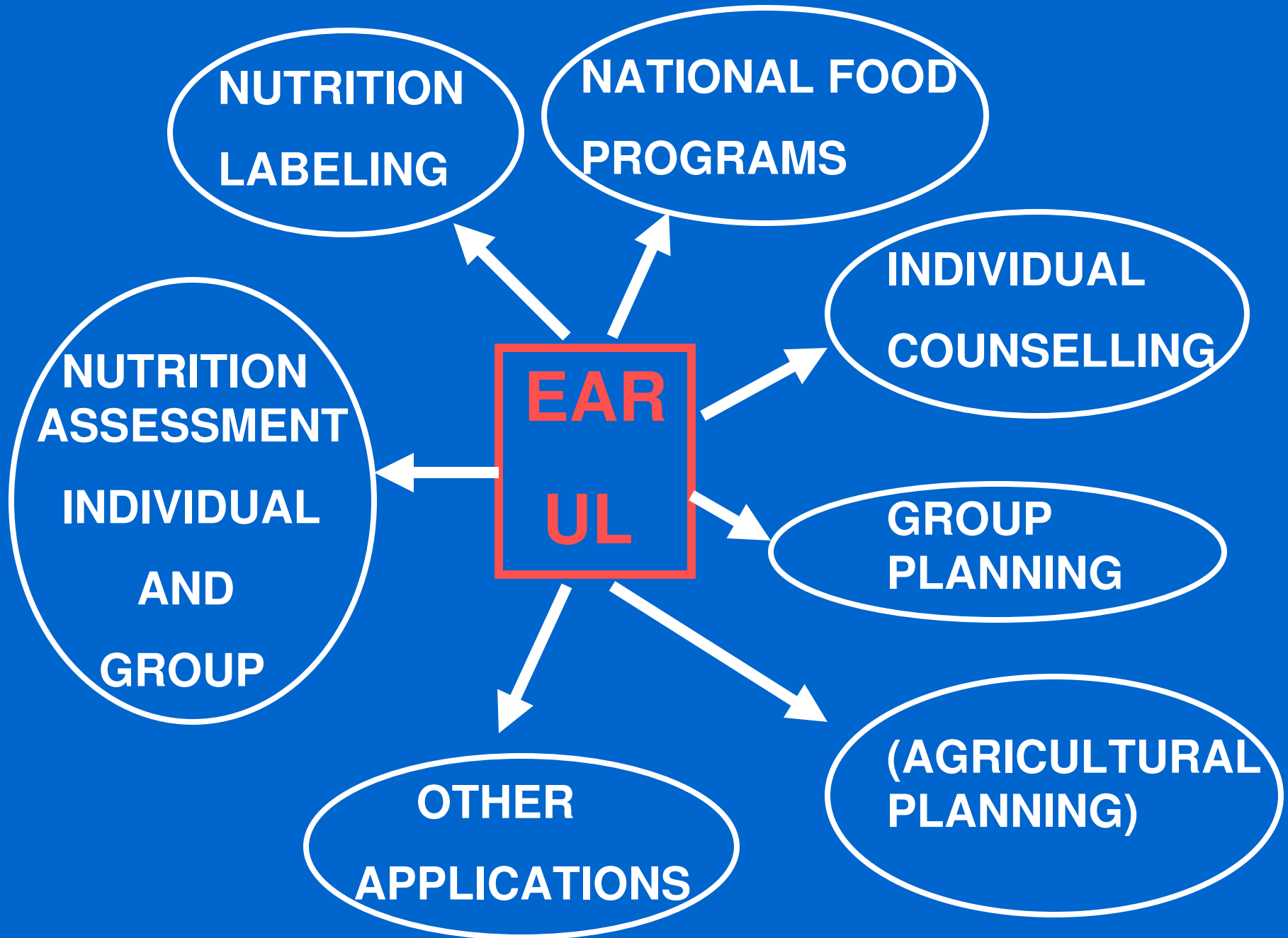
IF THE DRI PROCESS ADVANCES  
THAT SCIENCE OR PROMOTES  
RESEARCH, THAT IS A BONUS NOT  
THE PURPOSE!

## **AN OBVIOUS IMPLICATION**

**IF THE PURPOSE IS TO FACILITATE APPLICATION OF SCIENCE, IT FOLLOWS THAT THE PRINCIPLES OF SCIENCE MUST BE HONoured IN BOTH DERIVATION AND APPLICATION**

**IT SEEMS CLEAR THAT  
USERS WANT A SINGLE  
NUMBER THAT IS SUITED TO  
THEIR APPLICATION.**

**THE PROBLEM THAT HAS  
EXISTED FROM THE BEGINNING  
IS THAT THE NUMBER WANTED  
SHOULD DIFFER BETWEEN  
APPLICATIONS.**



**THE CRITICAL ESTIMATES NEEDED  
FOR ALL APPLICATIONS ARE:  
THE CENTRAL TENDENCY (EAR)  
THE HARMFUL LEVEL (UL)**

**USERS MUST DEVELOP  
ADDITIONAL INFORMATION TO  
APPLY IN SPECIFIC SITUATION**

**THE DRIs SHOULD NOT ATTEMPT TO  
PROVIDE THE DERIVED REFERENCE  
VALUES NEEDED FOR ALL  
APPLICATIONS**

**CONVENE GROUPS WITH RELEVANT  
EXPERTISE TO PROVIDE GUIDANCE  
ON VALID APPROACHES TO USE OF  
THE REFERENCE VALUES**

**THE IOM REPORT ON NUTRITION  
LABELING IS AN EXAMPLE**

## FOR NEW DRIs

**ESTABLISH WHAT PARAMETERS  
MUST BE ESTIMATED TO SERVE  
THE DIVERSE NEEDS OF USERS**

**MAKE MEETING THOSE NEEDS  
THE PRIORITY OBJECTIVE**

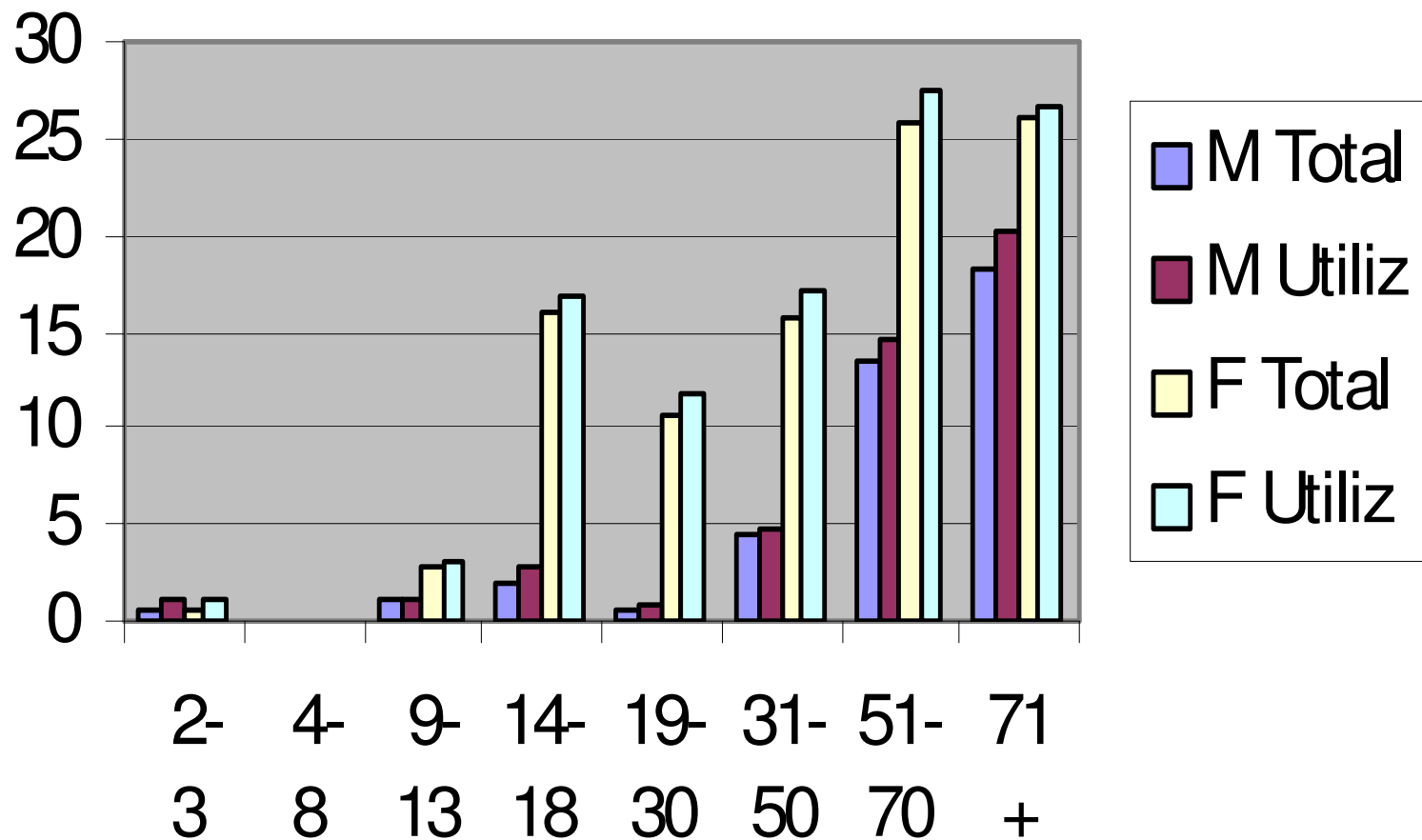
# **ANOTHER ISSUE TO BE ADDRESSED IN FUTURE DRIs**

**IT MUST BE POSSIBLE TO VALIDATE  
DIETARY ASSESSMENT THROUGH  
CLINICAL / BIOCHEMICAL MEASURES  
IN FIELD**

**THIS IS CRITICAL TO PLANNING MAJOR  
INTERVENTIONS**

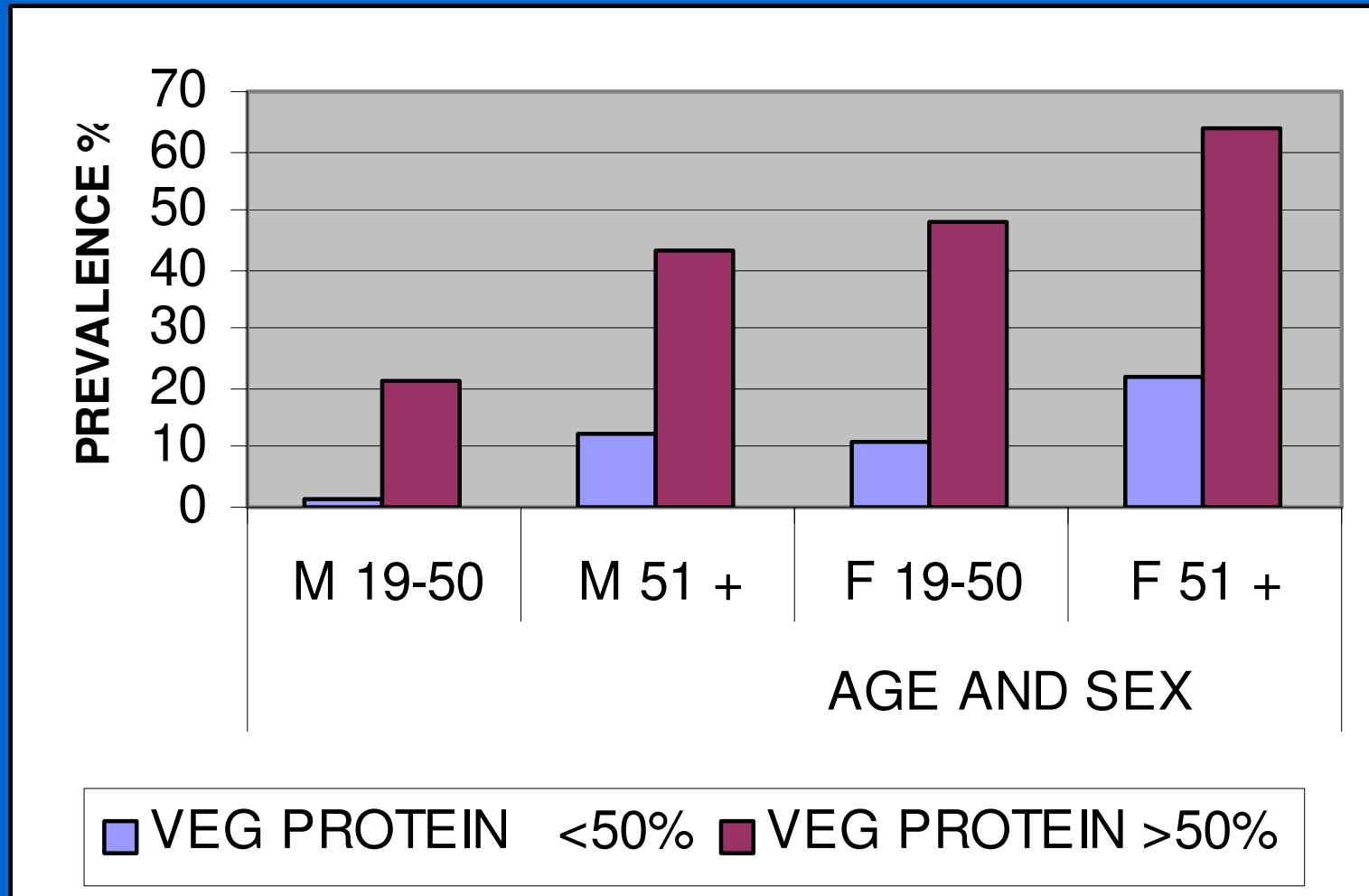
**IT IS ALSO CRITICAL TO VALIDATION  
OF REQUIREMENT ESTIMATES.**

# ESTIMATED PREVALENCE OF INADEQUATE PROTEIN INTAKES BY AGE, SEX AND UTILIZABILITY



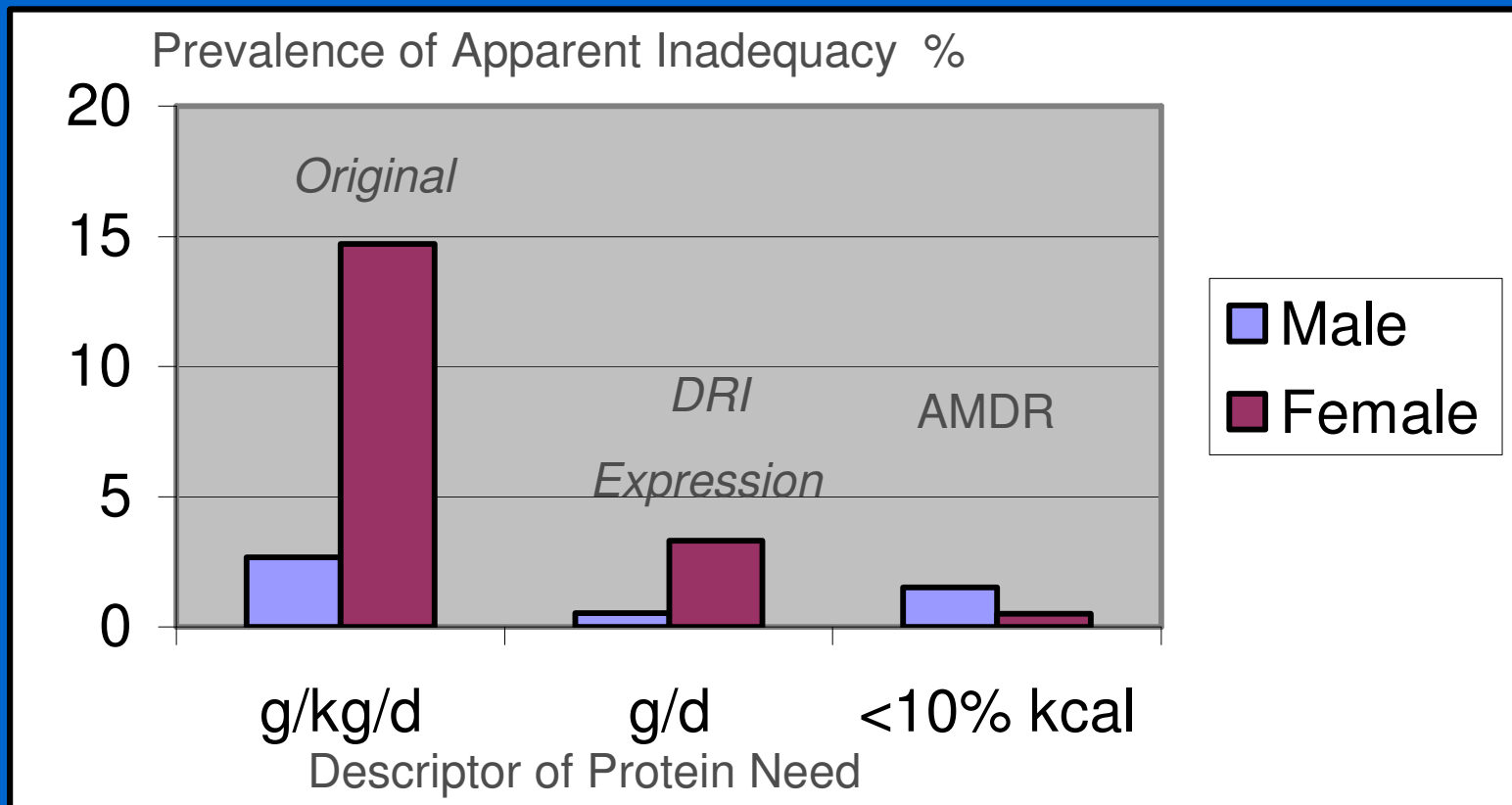
NHANES III 1988-1994

# IMPACT OF CHOICE OF DIETARY PROTEIN SOURCE ON PROTEIN INADEQUACY



*High veg protein group = 12% of subjects*

# IMPACT OF CHOICE OF ASSESSMENT CRITERION, PROTEIN (Adults 19-50)



# THE ISSUES

WHICH ESTIMATE IS CORRECT ?

IS ERROR IN ESTIMATE DUE TO:

Bias in dietary methodology?

Error in requirement estimate ?

Error in criterion applied?

HOW DO WE VALIDATE THE ESTIMATED  
PREVALENCE OF INADEQUATE INTAKES?

WHAT OUTCOME MEASURE CAN BE USED?

HOW DO REQUIREMENT AND MEASURABLE  
OUTCOME RELATE TO HEALTH

REQUIREMENT FOR WHAT?

# LESSONS FOR THE FUTURE

**IDENTIFY THE ESTIMATES TRULY NEEDED.  
FOCUS EFFORT ON THESE ESTIMATES**

**IDENTIFY REQUIREMENTS IN RELATION TO  
MEASURABLE OUTCOMES THAT HAVE  
QUANTITATIVE LINKS TO HEALTH**

***RESPECT THE SCIENCE OF NUTRITION***

**DO NOT MIX DESIGN OF DIETARY PATTERNS  
WITH ESTIMATION OF NUTRIENT  
REQUIREMENTS.**

# DREAMS AND REALITIES

## DESIRED

## FEASIBILITY

REQ MIDPOINT (EAR)

YES (For some)

REQ DISTRIBUTION

NO (For all except at very high cost)

DETRIMENTAL MIDPOINT

NO (For all)

JUDGED RISK START (UL))

YES (For some)

USUAL INTAKE DIST

YES (If data collected)

USUAL INTAKE , INDIVID

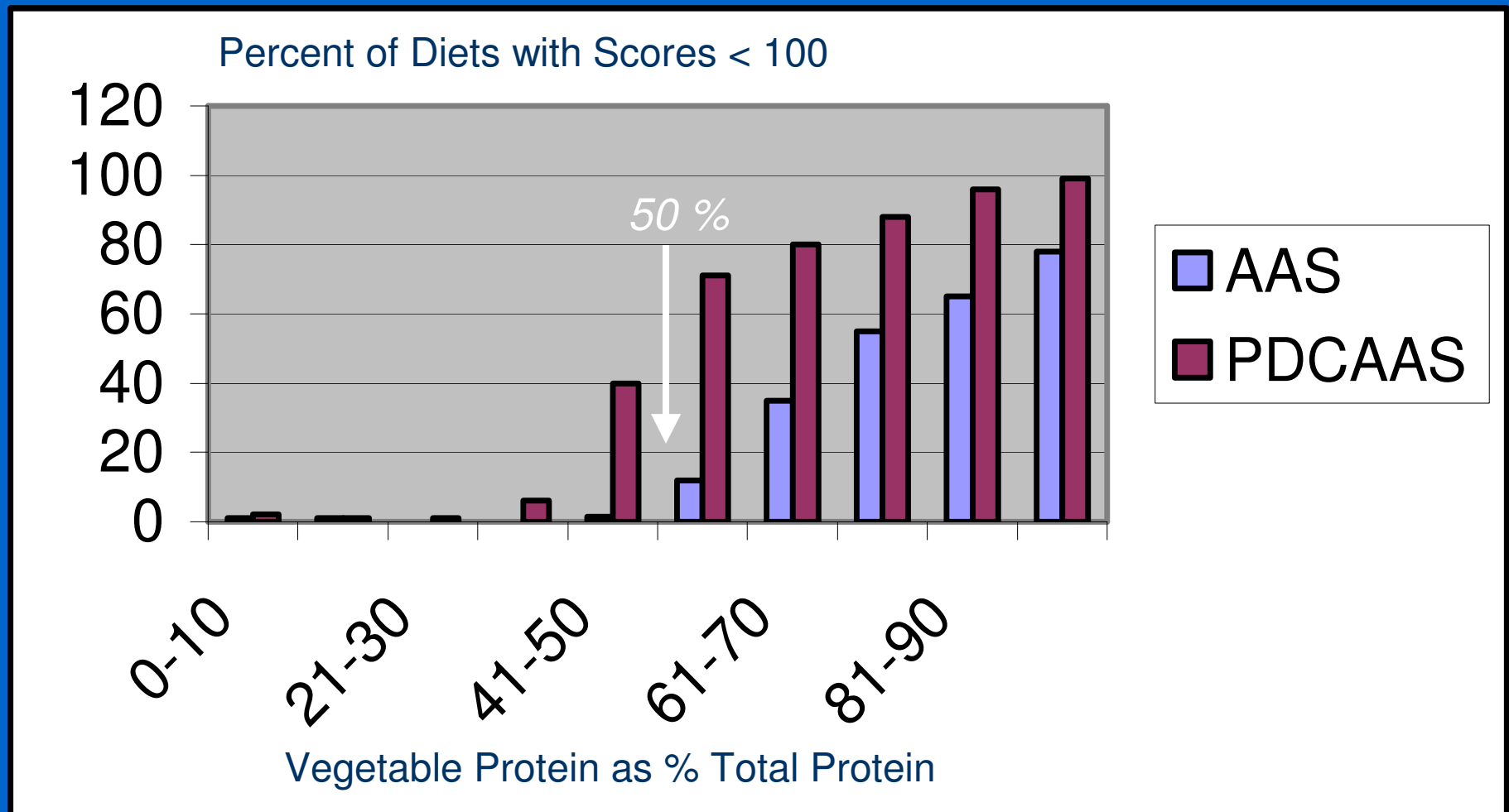
NO (For all)

CORRELATION INTK-REQ

NO (For all)

**DREAM DESIRABLE, LIVE REALITY**

# PROTEIN QUALITY AS A FUNCTION OF PROPORTION FROM VEGETABLE SOURCE



*N = 27,688 single days*