WELCOME
IZiNCG Satellite Session
May 14, 2009
FOOD AND NUTRITION BULLETIN

SUPPLEMENT 2:
International Zinc Nutrition Consultative Group (IZiNCG) Technical Document #1
ASSESSMENT OF THE RISK OF ZINC DEFICIENCY IN POPULATIONS AND OPTIONS FOR ITS CONTROL
Christine Hotz and Kenneth H. Brown, guest editors

Available on the IZiNCG web site: www.izincg.org

March, 2004
March, 2004

Comprehensive review of current knowledge on zinc nutrition

Increased recognition of zinc deficiency as a public health problem

Provided groundwork on prevalence estimates – allowed estimates of Global Burden of Disease
2004 -

• Increased recognition of zinc deficiency as a public health problem

• Provided groundwork on prevalence estimates – allowed estimates of Global Burden of Disease due to zinc deficiency

• Increased interest in assessing prevalence of zinc deficiency

• Increased demand for information on how to include zinc in micronutrient programs
IZiNCG Technical Brief

Quantifying the risk of zinc deficiency: Recommended indicators

The risk of zinc deficiency is considered to be elevated and of public health concern when the prevalence of children under 5 years of age suffering from moderate zinc deficiency (MAD) is ≥5%.[3]

For more information, see IZiNCG technical brief no. 3, 2007.

Issues concerning the collection and storage of serum zinc concentration samples should be taken from the views of a sample of people among populations or sub-sets, defined by age, geographic region, status, or other description. More information and sample size issues are available in the full publication.[4]

www.IZiNCG.org
Encouraging further assessment of population zinc status

- Conclusions of the Joint WHO/UNICEF/IAEA/IZiNCG Interagency Meeting on Zinc Status Indicators
  - Food and Nutrition Bulletin 28(Supplement 3) 2007

  - **Biochemical Indicators** SY Hess, KH Brown
    - Serum zinc is preferred indicator for prevalence and impact assessment

  - **Functional Indicators** C. Fisher–Walker, RE Black
    - Linear growth stunting for prevalence estimates

  - **Dietary Indicators** C. Hotz
    - Risk of inadequate intake; design and assessment of fortification programs
Information and experience with zinc intervention strategies has increased.

IZiNCG undertook to compile and analyze all available information.
March, 2009

Systematic Review of Evidence for Impact of Zinc Intervention Strategies

Prepared & reviewed by IZiNCG Steering Committee

IUNS and Food Nutr Bull coordinated external review
• UNICEF
• WHO
Content

- Preventive zinc supplementation in children
- Therapeutic zinc supplementation in children
- Zinc supplementation during pregnancy and lactation
- Zinc fortification
- Dietary Diversification to enhance zinc intakes
- Zinc intake through breastmilk
- Improving zinc status through biofortification
- Conclusions and mainstreaming zinc interventions
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Summary of Conclusions

Population zinc status assessment:

- The recommended biochemical indicator is the prevalence of serum zinc concentration less than the age/sex/time of day–specific cutoffs;

- When the prevalence is greater than 20%, intervention to improve zinc status is recommended.
Reduced duration of acute diarrhea by 0.5 days (n=14; p<0.002)

Reduced duration of persistent diarrhea by 0.68 days (n=5; p<0.001)

No beneficial effect among children < 6 months of age
Benefits of Zinc Fortification

- ↑ Zn intake
- ↑ Zn absorbed
- Effective ↑ serum Zn
- Safe, cheap

• Uncertain efficacy
• Cost

Weight of evidence in favor of zinc fortification
Thank you!

Please visit our web site at www.izincg.org