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FOR IMMEDIATE RELEASE

Orthomolecular Medicine News Service, July 13, 2026

International Vitamin D Dosing Policy Update:

Expert Panel Consensus and an IOM Systems Medicine Perspective

On May 21, 2026, GrassrootsHealth and IPAK-EDU convened an international expert panel webinar titled **"Vitamin D Dosing Policies Update."** The event brought together many of the world's leading vitamin D researchers, clinicians, and public health experts to discuss current evidence, clinical implementation, biological variability, vitamin D resistance, and future directions for vitamin D policy.

The webinar featured Dr. Michael Holick, Dr. Sunil Wimalawansa, Dr. William Grant, Dr. Edward Giovannucci, Dr. Bruce Hollis, Dr. Carol Wagner, Dr. Scott Weiss, Dr. Hooman Mirzakhani, Dr. Leigh Frame, Dr. Beth Sanford, and Dr. Richard Cheng, among others. The discussion was moderated by Jennifer Aliano, Executive Director of GrassrootsHealth.

Watch the Full Forum

The complete webinar recording is available here:

https://www.grassrootshealth.net/blog/leading-experts-call-for-changes-to-vitamin-d-policy-watch-the-discussion/ or https://youtu.be/M6Bp0pIvWk8?si=F7WetkDQO2M24-cD

The webinar reflected a growing recognition that vitamin D deficiency remains a major global public health issue and that current recommendations may not adequately account for individual biological variability or the expanding body of evidence regarding optimal vitamin D status.

Although the panelists represented diverse disciplines and perspectives, several common themes emerged, including:

- Vitamin D deficiency remains widespread globally.
- Achieved serum 25(OH)D levels are more informative than supplement dose alone.
- Biological variability and vitamin D resistance are clinically important.
- Current public health recommendations may be insufficient for many individuals.
- Prevention and health optimization deserve greater emphasis.
- Clinical implementation continues to lag behind scientific evidence.

The following article is divided into two parts.

Part I summarizes the key messages presented by the expert panel.

Part II presents the IOM Systems Medicine Clinical Guidance framework for vitamin D optimization. This section reflects the perspective of IOM Systems Medicine and OMNS and should not be interpreted as an official position of the expert panel itself.

Part I

The following summaries are presented in the order of the speakers' presentations.

Jennifer L. Aliano, MS, LAc, CCN

Executive Director, GrassrootsHealth

Host and Moderator

Ms. Jennifer Aliano opened the webinar by welcoming participants and outlining the purpose of the forum: to examine current vitamin D dosing policies in light of emerging scientific evidence and growing recognition of individual biological variability.

She emphasized GrassrootsHealth's longstanding mission of translating scientific research into practical public health applications and highlighted the importance of bridging the gap between research findings and real-world implementation.

Ms. Aliano noted that despite decades of vitamin D research, deficiency and insufficiency remain widespread globally. She stressed the need for evidence-based public health strategies that recognize differences in individual responses to vitamin D and support personalized approaches to achieving optimal health.

Throughout the webinar, Ms. Aliano guided the discussion by connecting themes across presentations and encouraging dialogue among researchers, clinicians, and public health professionals.

Key message: Scientific evidence must ultimately be translated into practical, accessible, and effective public health strategies that improve health outcomes at the population level.

James Lyons-Weiler, PhD

IPAK; MAHA Institute

The Statistical Mistake by the IOM

Dr. Lyons-Weiler examined the statistical methods used in the development of the Institute of Medicine (IOM) vitamin D recommendations. He discussed how different statistical assumptions and analytical approaches can influence estimates of vitamin D requirements and population recommendations.

Key points:

- Population-based recommendations depend heavily on underlying statistical assumptions.
- Small differences in methodology can lead to substantially different intake recommendations.
- Future guideline development should carefully evaluate the statistical models used to estimate nutrient requirements.

Key message: Statistical methodology plays a critical role in determining vitamin D recommendations and deserves careful scrutiny.

Michael Holick, PhD, MD

Boston University School of Medicine

IOM / Endocrine Society Guidelines: History and Shortcomings

Dr. Holick reviewed the history of vitamin D guideline development and discussed limitations of previous recommendations.

Key points:

- Vitamin D functions as a hormone with widespread physiological effects.
- Existing guidelines have focused primarily on skeletal outcomes.
- Vitamin D deficiency remains prevalent worldwide.
- Current recommendations may not reflect the full scope of contemporary evidence.

Sunil J. Wimalawansa, MD, PhD, MBA

Former Professor of Medicine, Rutgers University

Vitamin D Fundamentals

Dr. Wimalawansa provided an overview of vitamin D physiology, metabolism, and biological variability.

Key points:

- Vitamin D requirements vary considerably among individuals.
- Factors such as body weight, age, genetics, inflammation, ethnicity, and disease burden influence vitamin D status.
- Nutrient recommendations should focus on achieving optimal blood levels rather than prescribing identical doses for everyone.

William B. Grant, PhD

Sunlight, Nutrition and Health Research Center

Importance of Observational Studies

Dr. Grant reviewed evidence from epidemiological and observational studies linking vitamin D status to health outcomes.

Key points:

- Observational studies provide valuable information regarding long-term health outcomes.
- Many vitamin D associations are stronger when serum 25(OH)D concentrations are analyzed directly.

- Public health recommendations should consider both observational and interventional evidence.

Edward Giovannucci, MD, ScD

Harvard T.H. Chan School of Public Health

Insights from Randomized Controlled Trials and Mendelian Randomization

Dr. Giovannucci discussed strengths and limitations of randomized controlled trials (RCTs) and Mendelian randomization studies in vitamin D research.

Key points:

- * Interpretation of vitamin D trials requires careful consideration of baseline vitamin D status.
- * Negative studies do not necessarily indicate lack of biological effect.
- * Multiple forms of evidence should be integrated when evaluating nutrient-health relationships.

Carol Wagner, MD

Medical University of South Carolina

Vitamin D Effects on Prenatal and Newborn Health

Dr. Wagner reviewed evidence regarding maternal vitamin D status and fetal development.

Key points:

- Vitamin D deficiency during pregnancy remains common.
- Maternal vitamin D status directly influences fetal and newborn vitamin D status.
- Adequate vitamin D levels may improve maternal and infant outcomes.

Bruce Hollis, PhD

Medical University of South Carolina

Vitamin D, Lactation, and Early Childhood

Dr. Hollis discussed vitamin D requirements during breastfeeding and early childhood.

Key points:

- Maternal vitamin D status strongly influences vitamin D delivery through breast milk.
- Higher maternal vitamin D intake can safely improve infant vitamin D status.
- Early-life vitamin D sufficiency may have lifelong implications for health.

Scott Weiss, MD

Harvard Medical School / Brigham and Women's Hospital

Pregnancy: Scientific Issues Needing to Be Addressed

Dr. Weiss discussed remaining research questions regarding vitamin D and pregnancy.

Key points:

- Additional investigation is needed regarding optimal vitamin D targets during pregnancy.
- Pregnancy represents a unique physiological state with increased nutrient demands.
- Future studies should address unresolved clinical questions and outcomes.

Hooman Mirzakhani, MD, MMSc, PhD

Brigham and Women's Hospital / Harvard Medical School

Pregnancy: Trials Needed to Address Outstanding Questions

Dr. Mirzakhani reviewed future research priorities in maternal-fetal vitamin D science.

Key points:

- Additional clinical trials are needed to address unanswered questions.
- Future studies should focus on clinically meaningful maternal and infant outcomes.
- Precision approaches may help identify populations most likely to benefit.

Leigh Frame, PhD, MHS

George Washington University

Vitamin D and Immune Health: Hospitalizations and Surgeries

Dr. Frame reviewed evidence linking vitamin D status to immune function and clinical outcomes.

Key points:

- Vitamin D status may influence hospitalization rates and surgical outcomes.
- Vitamin D plays important roles in immune regulation.
- Maintaining adequate vitamin D status may support physiological resilience.

Richard Z. Cheng, MD, PhD

Editor-in-Chief, Orthomolecular Medicine News Service
Board Director, Riordan Clinic

Why Clinical Responses to Vitamin D Vary: A Systems Medicine Perspective

Dr. Cheng discussed the observation that individuals frequently exhibit different clinical responses despite having similar serum vitamin D levels.

Key points:

- Vitamin D status alone may not fully explain clinical outcomes.
- Biological barriers, nutrient interactions, metabolic health, inflammation, and environmental factors may influence vitamin D responsiveness.
- A systems medicine approach may help explain variability in clinical outcomes and guide individualized interventions.

Beth Sanford, DNP, RN

Director of Education and Clinical Practice, GrassrootsHealth

Implementation into Clinical Practice and Public Health

Dr. Sanford concluded the forum by focusing on implementation.

Key points:

- Vitamin D deficiency remains common despite decades of research.
- Practical implementation strategies are needed to translate evidence into practice.
- Education, testing, monitoring, and individualized recommendations remain essential.

Overall Forum Consensus

Despite differences in emphasis, the panel broadly agreed on several important principles:

1. Vitamin D deficiency remains a major global public health concern.
2. Current recommendations may not adequately address biological variability.
3. Serum 25(OH)D concentration is more clinically relevant than supplement dose alone.
4. Pregnancy, infancy, immune health, and chronic disease prevention deserve special attention.
5. Multiple forms of evidence-including observational studies, mechanistic studies, and clinical trials-should be considered when developing vitamin D policy.
6. Greater emphasis should be placed on implementation, prevention, and health optimization.

The following section presents the IOM Systems Medicine Clinical Guidance framework for vitamin D optimization. This framework reflects the perspective of IOM Systems Medicine and OMNS and should not be interpreted as an official position of the panel itself.

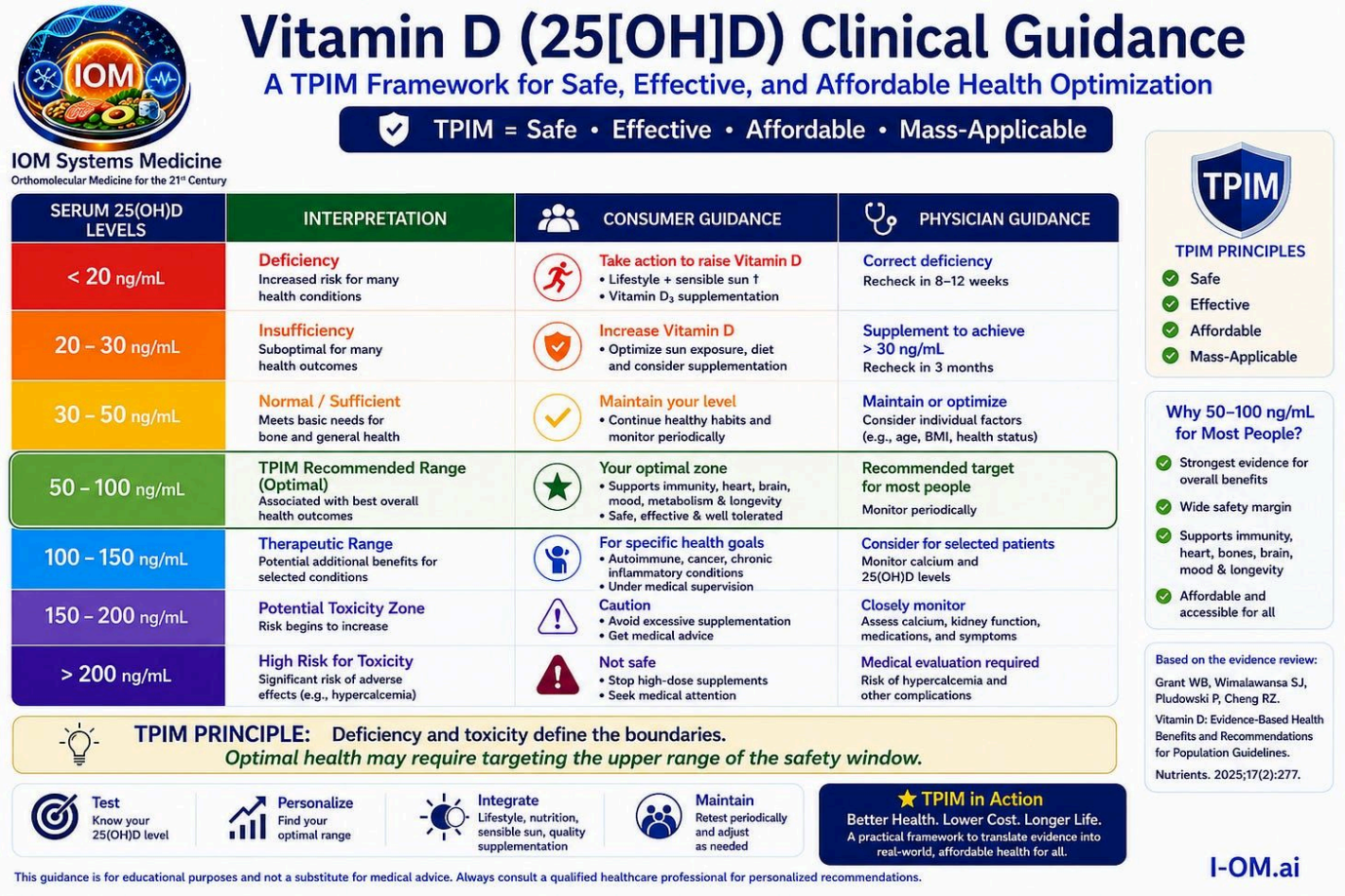
Part II

Commentary: An IOM Systems Medicine Perspective on Vitamin D Optimization

The preceding section summarized the presentations and discussions from the GrassrootsHealth International Vitamin D Policy Forum.

The following section was **not part of the forum presentations or panel consensus statement**. Rather, it represents the perspective of IOM Systems Medicine (Integrative Orthomolecular Systems Medicine) and reflects the author's interpretation of the current scientific literature, including the evidence review published by Grant, Wimalawansa, Pludowski, and Cheng (*Nutrients*, 2025).

Interpreting the TPIM Vitamin D Guidance Framework



Vitamin D (25[OH]D) Clinical Guidance: *A TPIM Framework for Safe, Effective, Affordable, and Mass-Applicable Health Optimization.*

One of the foundational principles of IOM Systems Medicine is:

Deficiency and toxicity define the boundaries.

For vitamin D, deficiency represents the lower boundary of physiological adequacy, while toxicity represents the upper boundary of physiological safety. Between these boundaries lies a broad safety window within which individuals may pursue optimal health outcomes.

The TPIM framework (Safe, Proven Effective, Inexpensive, and Mass-Applicable) provides a practical approach for evaluating preventive health interventions. Vitamin D is one of the clearest examples of a TPIM intervention because it is generally safe, effective, affordable, and widely accessible.

As illustrated in the figure, IOM Systems Medicine considers:

- **<20 ng/mL**: Deficiency
- **20-30 ng/mL**: Insufficiency

- **30-50 ng/mL**: Sufficient
- **50-100 ng/mL**: Preferred target range for most individuals
- **100-150 ng/mL**: Therapeutic range for selected situations under professional supervision
- **>150 ng/mL**: Increasing caution and monitoring required

Key Take-Home Message

Deficiency and toxicity define the boundaries. Optimization occurs within the safety window.

For vitamin D-and many other essential nutrients-the goal is not merely to avoid deficiency, but to achieve optimal physiological function while remaining safely within established biological limits.

Editor's Note

The vitamin D guidance framework presented in Part II reflects the perspective of IOM Systems Medicine and OMNS. It should not be interpreted as an official position or consensus statement of the GrassrootsHealth forum participants.

Reference

Grant WB, Wimalawansa SJ, Pludowski P, Cheng RZ. *Vitamin D: Evidence-Based Health Benefits and Recommendations for Population Guidelines*. Nutrients. 2025;17(2):277.

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