VDSP- standardization issues with 25-OHD. Christopher Sempos

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Vitamin D Standardization Program (VDSP) is a multi-faceted international program designed to promote the standardized laboratory measurement of serum total 25(OH)D, 25(OH)D3 + 25(OH)D2, in order to improve clinical and public health practice worldwide. It was established in 2010 by the NIH Office of Dietary Supplements in collaboration with NIST, CDC, and Ghent University. The components of the VDSP are: (1) a reference measurement system based on NIST Standard Reference Materials (SRM®) and the NIST, Ghent University and CDC reference measurement procedures (RMPs); (2) a standardization-certification program conducted by CDC; (3) accuracy-based proficiency testing programs, e.g. Vitamin D External Quality Assessment Scheme (DEQAS) and (4) a research program. Based on biological variability data, the initial VDSP assay performance criteria are <=10% imprecision and <= 5% bias to the reference values. The primary objective of the VDSP is to standardize serum total 25(OH)D measurement worldwide to the NIST, Ghent and CDC RMPs. To achieve that objective, the VDSP is working to promote development of standardized commercial assays and the standardized measurement of serum total 25(OH)D by clinical and research laboratories through its standardization-certification and accuracy-based proficiency testing programs. Finally, the VDSP is conducting a wide-ranging research program that focusses on: (1) Improving serum 25(OH)D assay measurement; (2) Studying the distribution of standardized values around the world in national health and nutrition surveys; (3), Standardizing 25(OH)D measurements made in the past; and (4) Developing RMPs and SRMs for additional vitamin D metabolites of research importance.