

4<sup>th</sup> World Congress on

## PUBLIC HEALTH, EPIDEMIOLOGY &amp; NUTRITION

May 24-25, 2018 Osaka, Japan

**Health disparity: Childhood diabetes mellitus control, assessment of control and compliance enhancement with Telehealth****George William Moll**

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Diabetes mellitus (DM) requires individualized treatment programs to optimize quality of life and survival. Mississippi has a 2017 population 2.98 million including about 3 per 1000 school age children with DM over 48,434 sq. miles served by only one Children's of Mississippi Hospital. In 2016 we ranked 1st in US with 308,295 adults living with DM prompting our 2017 Mississippi diabetes action plan. This identified disparities in DM prevalence and hospitalization rates for race, education, income and rural vs. metropolitan. Our DM patients often return to clinic few if any blood sugar (BG) records or meters. The clinic visit is an optimal time to make DM control recommendations. Hemoglobin A1c (HgbA1c) levels associate with tragic DM complication risks and reflect average BG exposure over previous 2 to 3-month interval. We use point of care (POCT) BG and HgbA1c for individualized DM home care recommendations while awaiting our National Glycohemoglobin Standardization Program (NGSP) certified clinical lab (CENT) HgbA1c levels. Our retrospective quality improvement study comparing patient simultaneously obtained POCT and CENT HgbA1c levels indicates our instrumentation can attain HgbA1c standard of care agreement with total allowable error no more than 10%, but POCT HgbA1c 8.5%-10% can at times return CENT HgbA1c 7.5% or less (excellent control). Our UMMC Telehealth is improving individual care beyond clinic visits with remote patient monitoring encouraging 3-4 times daily BG compliance. RPM reduced HgbA1c levels in 16 of 23 patients (44%) and hospital encounters decreased 2.6 to 0.7 per patient per year. We are seeing improved childhood DM control.

**Biography**

George William Moll has received Biochemistry PhD and MD from University of Chicago Pritzker School of Medicine. He is Tenured Professor Pediatrics and Pediatric Endocrinology at University of Mississippi Medical Center (UMMC) where he has been Division Chair for 25 years. He published over 50 peer reviewed papers and 100 abstracts. He has over 40 years Clinical practice, Education as Graduate Faculty UMMC School of Medicine and Research experience. He is UMMC Sigma XI Chapter President and holds Chair or Vice-Chair in Mississippi Academy of Sciences Division of Health Sciences. He serves as abstract and journal reviewer and Mississippi Health Department Genetics Advisory Board Member.

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