1.) - CalMod Validated compared to two other indices.
   - Supports a 26 point cutoff.


2.) - TX study agrees and supports that 5 states have 3 issues medicaid patients: 1.) Broken appointments 2.) Low reimbursement 3.) Patient non-compliance.


3.) - Review chart Phase 1 studies
   - Washington HLD cutoff is 25 points and they provide phase 1, phase 2 and comprehensive coverage.
   - Florida has HLD cutoff of 26 points.
   - Medicaid coverage “Never includes purely cosmetic or elective procedures”

   Bresnahan, BW, Kiyak HA, Masters SH, McGorray SP, Lincoln A, King G. Quality of life and economic burdens of malocclusion in U.S. Patients enrolled in medicaid.

4.) - “The Classification and Regression Tree modeling was used to determine the HLD (CalMod) cut-off point of orthodontic treatment need according to the gold standard.”
   - This model suggests a cut-off point of 18.5, considerably lower than the cut-off 26 currently used by Medi-Cal.
   - “Our results show that the HLD (CalMod) with a cut-off point of 26 fails to indentify a considerable percentage of handicapping malocclusions.”


5.) - Provided state by state review of medicaid program orthodontic services.
   - Suggests use of HLD as many states have used it.


6.) - Due to lawsuits Medi-Cal has modified the HLD.
   - This study compared Maryland and California HLDs and found that the CalMod provided less approvals for orthodontic care.

7.) This study chose to use HLD CalMod, “This simple index was chosen because the main component traits were well defined and, when analysed separately, reflected changes with time.”


8.) Medicaid patients had more failed appointments than non-medicaid patients.


9.) Identified barriers to Orthodontic access. Provider participation is limited due to many factors including missed appointments, tardiness, low reimbursement levels, difficulty collecting from Medicaid, loss of coverage during treatment, need for prior authorization, difficulty getting billing questions answered, delays in receiving payment, unruly/uncooperative behavior, and cancellations at last minute.


10.) “Interceptive orthodontics (phase 1) significantly reduces the severity of malocclusions and moves most from the “medically necessary” category to elective but does not produce finished results for most patients.”


11.) “Phase 1 orthodontic treatment significantly reduces malocclusion severity in Medicaid and private-pay populations.”


12.) In the year 1998 over 150,000 California patients since 1991 were evaluated using the CalMod HLD.
   -Working quite well.
   - Is useable within the context of Medicaid regulations.


13.) Heavy load field testing of 1000 cases using latest CalMod version shows its validity.

Parker WS. A study of 1000 malocclusions selected by the HLD (CalMod) Index. Am J Orthod Dentofacial Orthop 1999;115:343-51.
14.) - HLD not designed to indentify malocclusions but as a handicap.
   - White House Conference on Child Health and Protection 1932 need to ID when handicap is
     associated with extreme variation.
   - Drake - developed HLD to not only measure patient where extreme variation started but to
     what degree it was handicapping.

   Summers CJ. Some effects of developmental changes on the indicies of malocclusion. J Pub

15.) - Phase 1 decreased eligibility for Phase 2 coverage by Medicaid.
   - Increased number patients treated with same amount of funds.
   - Validates HLD for Medicaid uses.

   Theis JE, Huang GJ, King GJ, Omnell, ML. Eligibility for publicly funded orthodontic
   treatment determined by the handicapping labiolingual deviation index. Am J Orthod

Compiled by All About Braces and presented at Orthodontic retreat December 7, 2011.