

**STRATEGIES AND CHALLENGES IN
ASSESSING AND TREATING
OVERWEIGHT IN CHILDREN**



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Faculty Disclosure

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- I do not intend to discuss an unapproved/investigative use of a commercial product/device in my presentation.

Gallup Indian Medical Center

- Navajo Area Indian Health Service Hospital
- Serving predominantly Navajo patients from the local urban area and rural Navajo Nation communities within a 30-50 mile radius
- Gallup, New Mexico population 20,000
- Providing inpatient and outpatient general pediatric care
- Pediatric Clinic staffed by 11 pediatricians and 1 nurse practitioner.

Envision New Mexico

- State-wide Quality Improvement Project
- Strategies to improve identification and management of pediatric overweight/obesity in clinic settings
- Pilot testing an office-based intervention strategy

Envision New Mexico

- The pilot project emphasized:
 - time –efficient intervention
 - minimal data collection
 - quick method to identify
 - brief initial interventions
 - standard initial lab testing
 - follow-up

Envision New Mexico

- Components of the Intervention:
 - BMI and BMI % for age calculation and documentation
 - Convey key messages
 - Assess patient's readiness to change
 - Draw appropriate screening labs
 - Establish follow-up plan

Envision New Mexico

- BMI Documentation/Data Collection
 - Provider and Nursing Staff given training in the pilot project relevant to each of the areas of intervention and asked to assess the efficacy/value of various tools for accomplishing the intervention via PDSA cycles
 - Data from PDSA cycles reported back to clinic staff to plan subsequent PDSA cycles

Gallup/Envision Project

- Baseline Pediatric Overweight Interventions
 - Prior to project this was primarily done via height/weight determinations with minimal use of BMI
 - No consistent messages regarding diet/exercise were being conveyed by the 11 providers
 - No formal assessments of readiness to change were being done
 - Several standard lab testing protocols had been implemented over several years
 - No community based-programs for pediatric overweight intervention existed.

Gallup/Envision Project

- Identification of Pediatric Overweight
 - Project utilized a data collection sticker attached to all relevant charts to prompt providers to calculate BMI and BMI percentile for age and yield a weight category.
 - Stickers needed to be placed in prominent location on charts to enhance completion
 - Staff asked to use at all well patient encounters and encouraged to use for acute visits

Gallup/ Envision Project

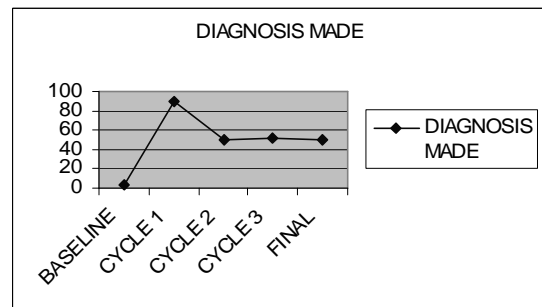
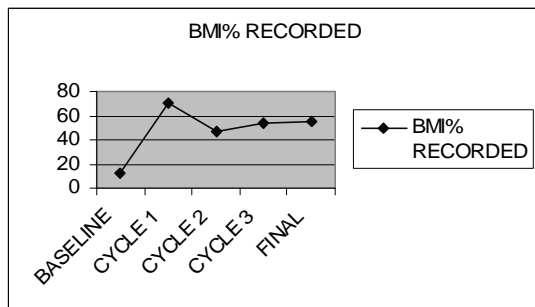
- Data Collection
 - A rapid rise in the % of patients having a BMI and BMI% calculated was seen initially during the summer months followed by a decline in the winter months as acute workload picked up
 - Reinforcement of the value of BMI/BMI% calculation resulted in a subsequent rise in % of patients with BMI but not to initial project level.

Gallup/Envision Project

- Data Collection
 - Gallup clinic is still utilizing PCC not EHR so PCC forms were modified to incorporate BMI to eliminate stickers once staff were accustomed to BMI use
 - RPMS Health Summary was modified to use Adult standard measurement panel rather than Pediatric standard measurement panel since this includes calculated BMI
 - Screening procedures modified to require height calculations at least once a year in addition all well child/teen encounters to have more valid BMI data on health summaries

Gallup/Envision Project

- Data Collection
 - ICD-9 codes for BMI added to PCC forms to allow more accurate coding (pending implementation)
 - Providers given responsibility to calculate BMI/BMI% at the visit to promote recognition/intervention
 - Stadiometers used for height measurements
 - Manual standing scales for weight
 - All blood pressures done manually for accuracy



Gallup/Envision Project

➤ Key Messages

- 4 messages designed to facilitate a brief initial intervention in the office
 - Get up and play hard
 - Cut back on TV, computer and video games
 - Eat 5 servings of fruit/vegetables a day
 - Cut down on sodas and juice drinks

Gallup/Envision Project

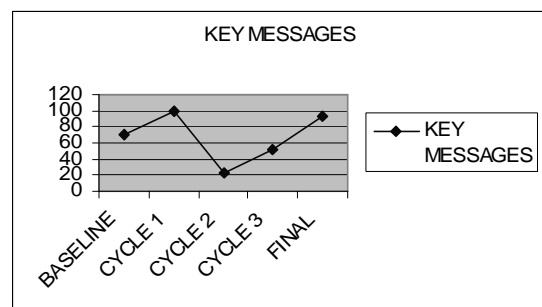
➤ Key Messages

- Posters with key messages prominently displayed in waiting areas
- Posters in all exam rooms
- Handouts with key messages in all exam rooms
- Additional handouts developed offering more suggestions for diet/activity changes to make at home
- Additional handouts on nutritional/sugar/calorie content of foods/drinks commonly encountered in our community developed. (Stop the Pop)

Gallup/Envision Project

➤ Key Messages

- Emphasis placed on choosing just one intervention
- Allowing patient/family to decide
 - Variable levels of interest in making a choice to commit to change/choosing a key message
- Offering other resources
 - pediatric dietician
 - wellness center
 - additional visits to clinic



Gallup/Envision Project

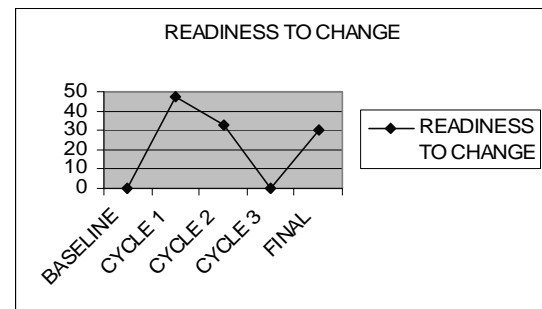
- Readiness to Change
 - Utilization of a ten point linear scale to ask patient to assess their readiness to change
 - Scales posted in exam rooms and explained briefly by providers
 - Providers introduced to motivational interviewing via presentation of concepts and role-playing visits

Gallup/Envision Project

- Readiness to Change
 - This was the most problematic element of the intervention
 - most difficult when patients/families did not present with weight concerns as the reason for visit. Easier in well visit/sports physical setting than in acute illness setting but still not readily accepted by patients/families unless this was their concern
 - easier to do with established patient/provider relationship

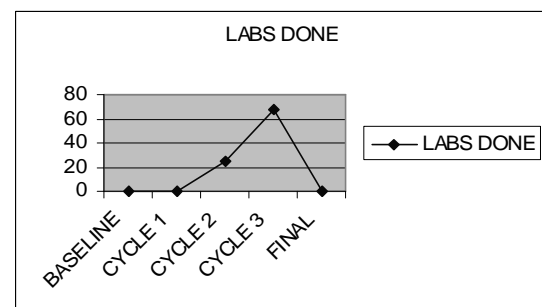
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- Readiness to Change
 - Many patients/families at 0 level of readiness when presented this information at visits for other reasons.
 - When there was some level of readiness to change other informational handouts and resources offered
 - If families do express readiness to change visits can become prolonged and decision about how much to engage that day versus at a follow-up visit needs to be made
 - Follow-up visit show rates have not been good although tend to be better if patient/family had concern/readiness to change scores higher



Gallup/Envision Project

- Lab Testing
 - Offered and explained to those >85% BMI
 - fasting vs random testing and show rates
 - offering evening/weekend testing options
 - insulin levels
 - glucose tolerance testing
 - lipid panels
 - liver enzymes



Gallup/Envision Project

➤ Follow-up Visits

- All patients 85% or above offered primary care follow-up visit with identified primary provider
- Review lab test
- Review readiness to change and interventions attempted
- Offer dietary/wellness interventions
- Community resources

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➤ Community Outreach

- Clinic providers meeting with other professionals/programs in the community
- to share ideas/resource
- Programs
 - Wellness camp (DM program and community)
 - Link to SBHC/School-based interventions
 - Enhancement of Wellness Center Programs
 - IHS DM Program/HPDP Programs
 - Outcome data collection

Gallup/Envision Project

➤ Outcome

- Primarily aimed at assessing changes in provider practice not impact of project on weight/BMI among patients
- Project did demonstrate that providers did make changes that were sustainable and that the components of the intervention could largely be incorporated into a busy pediatric clinic practice setting and enhance the consistency of identification and initial intervention of pediatric overweight

COMM-TC

➤ Telemedicine Project

- Multidisciplinary teleconferences involving
 - University-based subspecialists
 - pediatric endocrinology
 - pediatric cardiology
 - pediatric nephrology
 - pediatric gastroenterology
 - pediatric psychiatry
 - pediatric dietician
 - psychologist
 - Community-based practitioners
 - pediatricians
 - family physicians
 - nurse practitioners
 - dieticians

COMM-TC

➤ Telemedicine Project

- Biweekly teleconferences with:
 - individual patient case presentations and discussion
 - didactic sessions on topics relevant to pediatric overweight diagnosis and management
 - CME available

COMM-TC

➤ Telemedicine Project

- Provides single point of access for community based providers to multiple subspecialists to consult on specific patients
- provides a forum for subspecialists to interface with one another on management of pediatric overweight and appreciate the contributions/perspectives of various subspecialists in dealing with this complex problem
- Enhances the knowledge/skills and comfort level of the community-based provider in establishing a medical home for these patients and addressing more diagnostic and management locally.

COMM-TC

- Telemedicine Project
 - Time commitment and availability
 - focused sessions
 - recorded sessions
 - Equipment/technical capabilities
 - lack of resources in many rural areas

Future Projects

- Adapting the PCC-based intervention to EHR
- Collaborating with DM program/Wellness Center/HPDP/SBHC/Private Sector providers to develop community-based intervention
- Evaluate patient outcomes
 - track global pediatric BMI trends in PCC data
 - track identified cohorts of patients
 - evaluate outcomes from community-based interventions