CHAPTER 2

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Chapter 2

The Groundwork Leading to Program Development: Assessment of the *Fit WIC* Populations

2.1 Methodologies for Determining the Characteristics and Needs of the *Fit WIC* Populations

AS GROUNDWORK FOR THE DEVELOPMENT OF THEIR OVERWEIGHT PREVENTION INTERVENTION, each Project Team engaged in a methodical process of collecting information about the characteristics and needs of the people for whom they were to tailor their programs. The Teams conducted assessments of their populations, including the WIC sites and the communities of WIC participants, using a number of tools, briefly described here. Each Team designed its own assessment approach; each used unique tools designed by the Project Team for its own purposes. Their approaches are summarized at the end of the two sections in this chapter (*"Sources of the Above Information")*.

The Assessment Tools Used. The five *Fit WIC* Project Teams selected a rich variety of tools to use in their assessments, but there was also a strong consistency in their selections.

Project Teams organized ***focus groups***[1] of WIC participants and/or of WIC staff to assess their knowledge, attitudes and skills surrounding the issue of childhood overweight. Another assessment tool used by Project Teams was the ***written, individual questionnaire***. Questionnaires were used to solicit information regarding WIC participants' or WIC staffs' attitudes and knowledge regarding pediatric overweight and, in the case of WIC staff, perceived and real training needs. ***One-to-one interviews*** were used by one Project Team (*Fit WIC Kentucky*) to gather more in-depth information from both participants and professionals.

[1] Focus groups are discussions, usually 1-2 hours long, by a small number of individuals guided by a skilled facilitator and focused on a well-defined topic.

Information was extracted from ***WIC clinic records*** and from previously conducted WIC, state and federal ***population*** **surveys** (e.g., the Pediatric Nutrition Surveillance System).[2] Literature searches of ***published studies*** were a valuable source of information. Some Project Teams had done relevant ***prior investigations*** on pediatric overweight, which were critical in the project design process. Information was also recorded from ***detailed observations*** of the WIC clinic and community environments and from ***community canvassing and mapping***.

Assessment Tools

Focus groups
Written questionnaires
One-to-one interviews
Clinic records
Population surveys
Published studies
Prior investigations
Detailed observations
Community canvassing

What They Found. Because each Project Team approached the assessment process somewhat differently, the information collected was not completely standardized across Projects in a quantitative sense. However, the assessments revealed many similar characteristics among the *Fit WIC* populations in the five different State agencies. The next two sections of this chapter review important assessment findings. The abbreviations in parentheses following an observation indicate which State agency's Project Team made that observation in their assessment; you will see that many observations were made by more than one Team. There were also some important differences among *Fit WIC* State agencies in some population characteristics evaluated. For those characteristics, results from each Project Team are presented in a separate section.

Implementation of most components of the *Fit WIC* programs can be accomplished without completing extensive assessments of the sort done by the *Fit WIC* Project Teams. These detailed assessments were important as part of the *Fit WIC* research projects for the development of the interventions described in later chapters. However, such assessments can provide valuable information about a WIC population and about WIC clinic operations prior to implementation.

[2]The Pediatric Nutrition Surveillance System is PedNSS is a program-based surveillance system, using data (ethnicity/race, age, geographic location, birth weight, height/length, weight, iron status, breastfeeding) collected from health, nutrition, and food assistance programs for infants and children, such as WIC.

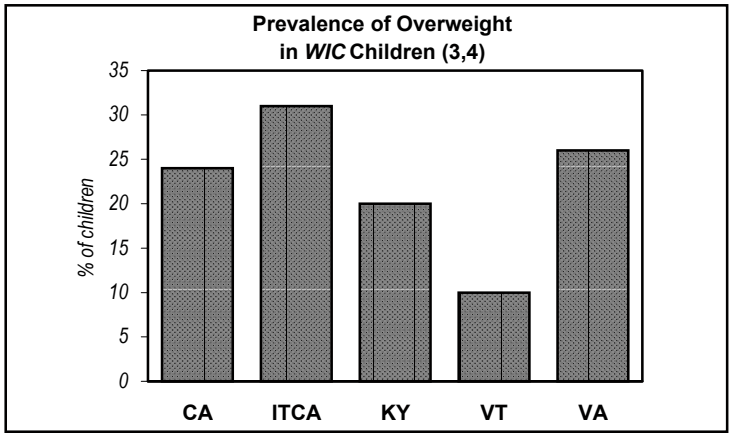
In the event an assessment is advisable prior to implementation, the *Fit WIC* Project Team has included in their detailed "How To" chapters (Chapters 4-8) any tools or forms you may need to accomplish it. Project Teams have also provided references to their own and others' publications, which describe in greater detail how to do use some of the assessment techniques described (*see Chapter 10*). You may also contact the Project Team members listed at the end of Chapters 4-8.

2.2. Assessment of *Fit WIC* Participants: Key Findings

2.2.1 Prevalence Of Overweight

Data on the prevalence of childhood overweight in their regions were examined by the *Fit WIC* Project Teams, but in somewhat different ways: Some looked only at their *Fit WIC* sites and others looked at information on overweight prevalence in their State WIC programs. Because of this difference, the age ranges of their populations were slightly different.[3] Also, because the data were collected at different times between 1998 and 2000, the definition of overweight also varied somewhat among the Project Teams.[4]

The prevalence of overweight in these populations as described was reflective of the high rate of overweight in the general population: rates ranged from about 10% in Vermont to slightly over 30% in the Inter Tribal Council of Arizona (ITCA).



[3]Overweight prevalence in *Fit WIC* participants was reported by VA (ages 2-4 years). Overweight prevalence in the entire State WIC agency was reported by CA (ages 12-60 months), ITCA (ages 1-4 years), KY (ages 24-60 months), and VT (all infants and children enrolled in WIC).

[4] Definition of overweight varied by Project Team: a weight for height >90th percentile for CA, > 95th percentile for VT and ≥90th percentile for ITCA and KY. VA defined overweight as a BMI greater than 95th percentile.

Two Project Teams reported overweight statistics for adult WIC participants. In Vermont, during the 1999 calendar year, 13.8% of WIC mothers were overweight (BMI of 26.1 to 29.0 kg/m^2) and 27.2% were very overweight (BMI > 29.0) prior to pregnancy, for a total of 41.0%. In Kentucky, based on a retrospective birth cohort study of WIC mothers, 33% of WIC newborns had mothers who were obese (BMI ≥ 30 kg/m^2) during the first trimester of pregnancy.

2.2.2 Attitudes Towards Childhood Overweight

Fit WIC assessments revealed that many parents believe overweight is a problem for preschoolers *only if* it is accompanied by other medical conditions, impairs the child's ability to be active or causes the child unhappiness (e.g., due to teasing) (CA ITCA KY VA). Mothers were most concerned that their children appear healthy, as judged from their face, hair and demeanor (CA VA). Many parents expressed the belief that a child's weight is a marker of the child's health and of a parent's skills (CA KY). They affirmed that good health in a child results from love and attention from family, as much as from good food and physical activity (CA).

> *"My baby's very healthy…but he's not chubby…I want him to gain a little more pounds…"*
> *Fit WIC focus group participant*

Parents blamed inadequate physical activity, eating the wrong foods and eating too much food as the most common causes of overweight in preschool children (CA). Other causes mentioned by parents included lack of self-control, poor parenting, stress in the family and inadequate attention from parents (CA). Many parents believed that another common reason for overweight in a child was genetics, or an inherited tendency to be overweight, which was likely to be expressed in the child regardless of other factors (CA KY VT VA).

> *"Their mother let them eat what isn't good, sort of the same as her, unhealthy food."*
> *Fit WIC focus group participant*

> *"Heredity…for example, in my house there are people who, from the time they are born, they are fat."*
> *Fit WIC focus group participant*

If a child reported being hungry despite having just eaten, it was emotionally difficult for mothers to deny additional food (CA KY). But, although they might not deny food, overweight mothers did not want their children to grow up overweight: For instance, some mothers reported telling their children to watch what they ate, so as not to "be fat like mom and dad" (CA VT). Parents felt that their own weight and eating patterns had an impact on their relationship with their children as well as on the habits of their children (CA VT).

> *"Well, I get scared because he doesn't want to eat…because he is very skinny, very skinny!"*
>
> *Fit WIC focus group participant*

But a mother's perception of her own child's weight status was often inaccurate and underestimated: In the Kentucky Project Team's study, 80% of the mothers of overweight children did not feel their children were overweight, even "a little." Parents often disagree with an assessment by WIC staff that their children are overweight (CA KY VT). Moreover, parents often did not recognize moderate overweight even in *children of other families* (CA VT VA).

> *"…If I had a chubby little kid, which I do…I don't put too much emphasis on it."*
>
> *Fit WIC focus group participant*

> *"This little girl, I know she is a little overweight, but I think that is just baby fat…they get really chunky and (then) they usually stretch out."*
>
> *Fit WIC focus group participant*

2.2.3 Perceived Barriers to a Healthy Lifestyle

WIC parents struggle with a variety of issues that hinder their ability to promote healthy lifestyles within their families. Lack of time and energy and overextended schedules, usually with work outside the home, were barriers reported by parents (CA KY VT VA). Concern for the child's safety, a lack of appropriate play space or affordable recreation programs, and winter weather were obstacles to physical activity (CA VT VA). Sometimes parents were not aware

> *"There (Mexico) one exercises three time a day; one goes to the river to swim during the day…and here the children don't do that. They just sit to watch TV and to eat…"*
>
> *Fit WIC focus group participant*

of what was available in the community (VT). Additionally, parents mentioned that overuse of television and electronic games kept their children from playing actively (CA ITCA).

Food insecurity contributed to participants' views of their options for a healthy lifestyle. Almost one-half of the participants surveyed in California reported being worried about running out of food during the month. Many participants reported that they didn't have enough money to purchase healthy foods (VT). Some did not have access to stores in which to buy the fresh and healthy food they wanted, either because stores were not convenient, or because they lacked transportation (CA).

WIC families experience a variety of barriers to healthy lifestyles.

Parents may not have the support of other family members or friends to change household meal or activity patterns (CA ITCA KY VT). Although they may try to shape their children's eating habits, mothers felt their control was limited and was challenged by others (CA KY VA). Because children came from a variety of family structures, many people influenced what their children ate. In general, the larger the household (i.e., the more people that the young child was exposed to), the less supportive the environment became for nutritious diets (ITCA). Influential adults in a child's life may have conflicting views as to what is "healthy" for him/her: Grandmothers in particular were noted as feeding unhealthy foods and sweets (ITCA VA). Many mothers said that the male adult in the family did not have good food habits and was not a good influence on family eating habits (CA VT). A family's unwillingness to try new foods was also cited as a barrier to change (VT).

> *"I say that a child will want to be like his or her father…I tell them, 'The food that your father is eating isn't good for you; that's why your father is sick…if I give you that food, well, then it will do you harm too'."*
>
> *Fit WIC focus group participant*

2.2.4 Knowledge of the Health Effects of Overweight and Nutrition

Many parents had a basic knowledge of nutrition and the importance of exercise; they were concerned about the health and welfare of their children (CA ITCA VT). Participants were knowledgeable about the WIC messages related to diet and nutrition (CA VA). They knew that it was important to establish good dietary habits in their children at an early age (CA). Many were also aware of the association between overweight and the occurrence of chronic diseases later in life (CA ITCA VA). Nevertheless, many caregivers were inconsistent in applying this knowledge to the daily activities of child rearing (ITCA). Preventing future "adult" health problems for their children did not appear to motivate parents to help their children avoid overweight (KY).

> *"Not to cook with a lot of fat, not much salt, don't give them many sweets, give them vegetables, fruits, beans, rice."*
> *Fit WIC focus group participant*

> *"…It is bad to be overweight. It can give them asthma or make their hearts sick."*
> *Fit WIC focus group participant*

> *"Then you must teach them since they are young. You must feed your kids vegetables…there are so many different things that are delicious."*
> *Fit WIC focus group participant*

2.2.5 Perceived Access to Services

Caregivers were generally satisfied with WIC services (CA ITCA VT). However, they complained of receiving conflicting health messages from doctors, WIC and other organizations (CA KY VT). Because WIC may sometimes be the only program or organization to which participants are connected, they were interested in having health-related classes and information and other social services available through WIC (CA ITCA VA). Participants requested more in-depth nutrition information, including strategies for how to implement specific dietary recommendations (CA ITCA) and

> *"WIC has helped us in some way…but, it would be good to have more deep conversations about how important it is to be healthy."*
> *Fit WIC focus group participant*

greater access to a nutritionist (CA ITCA). Other respondents requested training in parenting skills (CA VA).

Adult WIC participants would like to see a greater variety of foods represented in the WIC food package, including more fresh fruits and vegetables (CA ITCA) and ethnic foods (CA VA).

2.2.6 Activity and Exercise

Children. Parents described children as being very active (ITCA VT) and most parents thought their children got enough exercise (CA VT). They felt that their preschoolers were "always doing something" or "always running around" (VT). Children were actively crawling, jumping on the bed, playing with pans, blocks, cars, ball, hide and seek, t-ball, walking, wrestling, dancing, and tricycle riding (ITCA). Children (of WIC age and older) in the more rural areas in ITCA participated in cultural and outdoor activities such as pow-wows, fishing, hiking and trampoline.

About half of the Fit WIC Virginia parents reported playing actively with their children 3 or more days per week.

Some parents said their children could use more exercise but had difficulty identifying just how much exercise would be sufficient (VT).

Parents. In Virginia, slightly more than half of the parents reported that they played actively with their child on 3 or more days per week. About one quarter of them said they played with their child only once a week or even less.

> *"I did a lot of sports…until we immigrated to this country: soccer, baseball, and football. Clubs like these are needed (here)."*
> *Fit WIC focus group participant*

Between 40% and 50% of parents enjoyed physical activity at least once per week (CA VA) and felt their own level of activity was

"normal" compared to others (VA). In Virginia, 19% of parents at one site and 27% at another reported that they participated in physical activity *daily*. In California, the most common physical activity was walking, followed by aerobics/dance, ball sports, and jogging, biking or swimming. Parents enjoyed engaging in physical activity that involved the whole family, such as dancing and team sports, like soccer and baseball. In Vermont, virtually all parents participating in a focus group said they did *not* get enough exercise.

In thinking about reported activity and exercise, it is important to consider the accuracy or reliability of the reporting; no attempt was made to estimate accuracy of reporting in these qualitative studies. It is also important to think about the implications of the converse of these summaries; e.g., if approximately half of the parents report being active once a week or more, that means that the other half is active *less than once a week*!

2.2.7 Observations About Diet and Nutrition

- Families report regularly eating fast food and giving fast food to their very young children (CA).
- Some mothers felt that drinking too much soda was a nutritional problem for their children (ITCA).
- Fat intake was high to very high (by food frequency questionnaire) in the diets of the great majority of children: 82.3% and 90.4% of the children at two *Fit WIC* sites (VA).
- Foods from the vegetable group were low in the diets of 53.3% of participants (VT).

- About half the children had "excellent" fruit and vegetable intakes (54.8% and 50.7% of the children at the two sites) (VA).
- In Virginia, most *Fit WIC* families (about 80%) reported sitting down together for the evening meal.

As with reported activity, no attempt was made to quantify the accuracy of reporting dietary intakes.

2.2.8 Sources of the Above Information

California (CA): The Project Team conducted 8 focus groups with 45 WIC participants, primarily Hispanic. Five groups were conducted in Spanish, 3 in English. Focus group participants completed a short questionnaire, requesting minimal demographic information. Additionally, 205 participants completed questionnaires at 6 different WIC sites. More than half of the questionnaires (66%) were completed in Spanish. Except in rare circumstances, questionnaires were completed by interview.

Inter Tribal Council of Arizona (ITCA): The Project Team reviewed data from participating clinics and databases (e.g., Pediatric Nutrition Surveillance System). Eight focus groups were conducted with a total of 44 WIC participants. An annual WIC participant satisfaction survey was tailored for *Fit WIC* and questionnaires were administered to 1730 participants by WIC staff at local agencies.

Kentucky (KY): The Project Team analyzed available WIC data and feeding survey data. They conducted focus groups with approximately 45 biological mothers of WIC children 2-5 years of age and conducted 24 individual interviews at 4 WIC sites with participants.

Vermont (VT): The Project Team had access to results of two earlier WIC participant focus groups (one with 36 and another with 59 participants) on attitudes towards healthy eating, nutrition, weight and physical activity. The Project Team conducted one additional participant focus group, with 33 mothers, specifically on the topic of activity in preschool children in each of four project districts. The Project Team also developed and administered two questionnaires to participants, focused on issues related to preschoolers' physical activity. Two hundred eleven participants completed one of those questionnaire; 13 participants completed the other.

Virginia (VA): Four participant focus groups were conducted, each of a different ethnicity (Caucasian, African American, Hispanic and Vietnamese), with 28 participants altogether. The focus groups were conducted in the native language of the participants. The Project Team also conducted a questionnaire-based survey of over 300 WIC participants at one *Fit WIC* site.

2.3 Assessment of *Fit WIC* Staff: Key Findings

2.3.1 Attitudes Towards Childhood Overweight

WIC staff recognized overweight as being a moderate (VT) to a significant (CA) nutrition problem facing WIC children. WIC staff identified inappropriate diet (too much food, junk or high fat food, fast food and soda), inadequate physical activity, and too much TV as factors contributing to overweight in children (CA ITCA VT).

Many staff believed that an overweight child usually has an overweight mother (CA ITCA VT). It is unclear to what extent the staff believed this relationship is related to genetics or to lifestyle. However, many staff mentioned poor parenting skills as being among the primary causes of childhood overweight (CA ITCA KY VT). Parents were seen as causing overweight in their children if they were unable to set limits around food, were unable to perceive and respond to their children's hunger/satiety cues, or if they used food as reward or punishment (ITCA KY VT). Nearly one-half (45%) of staff reported that children were overweight because parents encouraged them to eat too much (ITCA).

> *"You sit them down and you beg them to eat."*
>
> *Fit WIC focus group participant*

2.3.2 Comfort with Counseling the Caregivers of Overweight Children

In order to be successful in their efforts, WIC staff in Virginia felt that it was important to understand the participant's personal and cultural perspective as well as to have developed a good rapport. However, 45% of obese staff and 28% of

overweight staff in Virginia reported being uncomfortable discussing excess weight with WIC parents. In the Virginia *Fit WIC* sites, staff reported feeling more comfortable discussing weight issues with the participants if they themselves were at a healthy weight. Discomfort in talking with parents about their child's excess weight was reported by about one-third to more than half of the staff in all other *Fit WIC* State agencies (CA ITCA KY VT).

Staff felt that the biggest barrier to talking with parents about children's weight issues was the reaction of the parents (CA ITCA KY VT). Parents were perceived to be overly sensitive to the topic, hostile or in denial of the problem (CA ITCA KY VT). Staff expressed concerns about making a mother feel guilty or responsible for her child's overweight (CA ITCA KY VT). Staff also mentioned that some parents are not concerned with their child's weight or that parents were more concerned with a child being underweight than they were a child being overweight (CA ITCA KY VT). Some WIC staff felt that they were not good role models because they themselves were overweight (CA ITCA KY VT).

> *"(Parents of overweight kids) feel like they failed somehow…when raising their kids."*
>
> *Fit WIC focus group participant*

In ITCA, nearly 30% of staff reported that they only occasionally or never asked parents *how they felt* about their child's weight. A large percentage of ITCA staff said they rarely talked about feeding-related parenting issues with participants.

2.3.3 Perceived Potential for Success in Counseling for Overweight

The majority of staff surveyed expressed a sense of frustration and failure regarding their job of counseling families in which overweight is a problem, especially when both parents and children are overweight (CA ITCA VT VA). Some expressed the feeling that the problem is too complex and overwhelming to be adequately addressed during limited WIC nutrition education encounters (VT).

Empathy was often felt for overweight parents, but WIC staff felt powerless to help overweight parents make positive changes for themselves. They instead chose to focus on the child in the hopes of making a difference (VA).

WIC staff enumerated other obstacles to success in their counseling activities. They felt unable to counteract the nutrition messages kids and parents receive while they watch TV (VT). Others expressed the idea that the counseling approach was driven by protocols rather than the individual needs of participants (KY). Staff also cited a lack of support for their assessments and recommendations from medical practitioners and extended family or friends (KY VT).

Success at counseling for pediatric overweight is seen to be dependent on the parents' receptiveness and level of readiness to make lifestyle changes (KY VT). Once a parent is receptive, staff felt that messages about *increasing physical activity* are more likely to be successful than messages about *changing diet* (VT).

2.3.4 Perceived Need for and Access to Training

Staff of one *Fit WIC* site in ITCA reported that their administration does very well in providing needed training. However, staff of the other two *Fit WIC* Projects reporting on the topic of staff training felt that they lacked adequate knowledge, skills and resources to deal with overweight effectively (CA VT). They felt they lacked training on how to deal with sensitive weight issues in a non-judgmental way (CA). Specific training requests from seventy percent or more of responding professional staff in Vermont included the following topics: how to open a discussion about overweight; how to deal with resistant participants; how to identify family barriers to overweight prevention; how to motivate and empower participants; how to assess and discuss long term risks associated with early overweight; and how to discuss age-appropriate dietary and physical activity approaches. Many requested

> *"You want to ask questions (of WIC staff), but you are embarrassed that they might answer you in a rude way."*
> *Fit WIC focus group participant*

technical information about the causes of and treatments for pediatric overweight, and about successful intervention strategies. Some staff requested better educational materials to give to parents to take home.

2.3.5 Self-Reported Overweight Among *Fit WIC* Staff

At the outset of the *Fit WIC* Projects, some Teams asked the *Fit WIC* staff to classify themselves on a spectrum from underweight to overweight; actual weight status measures were not taken. About 39% of WIC staff in Virginia and about 50% of the staff in California reported being overweight. In ITCA, 64% of staff surveyed at one site and 47% at the other site classified themselves as at least "somewhat overweight." At the Virginia *Fit WIC* sites, about 48% of the WIC staff reported that they were "not at all happy" or only "a little happy" with their current weight.

Since information on weight was self-reported, the degree to which this reflects the true percentage of overweight among staff at the various *Fit WIC* sites is not known. However, this qualitative information may in fact be a more important consideration than actual Body Mass Index measurements in understanding staff reluctance to counsel on issues surrounding overweight.

2.3.6 Activity and Exercise

Summaries of the two State agencies reporting in this category are presented separately because of the substantial differences in results.

Most staff members in California reported that they were regularly physically active, but the amount of time people spent being active varied greatly. About one-fourth of the staff reported being active an average of 30 minutes or more per day. Among those who exercised, the most popular activity reported was walking.

Nearly all ITCA WIC staff reported trying to improve their health. At the outset of the *Fit WIC* Project, most staff members were aware of the benefits of physical activity as a way to improve health (80% and 59% of the staff questioned at the two sites). And, 20% of all staff reported being physically active on a daily basis, while 40% reported being physically active three times or less per week. The most common behaviors reported to improve health were eating less food, eating more low fat foods and watching less television. But, more than 50% of all staff reported watching television more than two hours per day.

2.3.7 Sources of the Above Information

California (CA): Questionnaires were completed by all staff members at *Fit WIC* intervention and control sites. A total of 51 questionnaires were completed at the six sites.

Inter Tribal Council of Arizona (ITCA): Focus groups with WIC staff were conducted and the 40 staff members (25 from control sites and 15 from intervention sites) were surveyed with a written questionnaire. Staff is 65% Native American and 35% Hispanic and non-Hispanic White.

Kentucky (KY): The Project Team examined the perceptions of WIC health professionals about challenges and solutions in preventing and managing childhood overweight. They conducted 3 focus groups with a total of 19 health professionals who provided nutrition counseling in the Kentucky WIC Program.

Vermont (VT): Seventy-five staff members statewide responded to a *Fit WIC* staff survey, which was sent to professional clinic staff (nurses and nutritionists) in each of the 12 district offices.

Virginia (VA): The assessment of WIC staff was done with focus groups and a questionnaire-based survey. The survey was not limited to the WIC clinics involved in the *Fit WIC* Project but involved 100 WIC staff from across Virginia. Two focus groups were done with the professional staff from the *Fit WIC* sites