

How do the IOTN scores compare with what parents and dentists think relative to orthodontic treatment need? The vast majority of individuals who had orthodontic treatment feel that they benefited from the treatment and are pleased with the result. Today, medical and dental interventions that are intended to make the individual either "better than well" or "beyond normal" are called enhancements. Typical medical and surgical enhancements are drugs to treat erectile dysfunction, face lifts, and hair transplants. In dentistry, a good example of enhancement is tooth bleaching. In this context, orthodontics often can be considered an enhancement technology. It is increasingly accepted that appropriate care for individuals often should include enhancement to maximize their quality of life. If you really want it because you are convinced you need it, perhaps you really do need it—whether it is orthodontics or many other types of treatment. Medicaid and Medicare and many insurance companies now have accepted the reality that at least some enhancement procedures have to be accepted as reimbursable medical expenses. Similarly, when orthodontic benefits are included in insurance coverage, the need for treatment is no longer judged just by the severity of the malocclusion. The bottom line: Enhancement is appropriate dental and orthodontic treatment, just as it is in other contexts. A key question, of course, is "Does orthodontic treatment really increase quality of life and self-esteem?" Dentists usually judge that only about one-third of their patients have normal occlusion, and they suggest treatment for about 55% (thereby putting about 10% in a category of malocclusion with little need for treatment). It appears that they include all the children in IOTN grade 3 and some of those in grade 2 in the group who would benefit from orthodontics. Presumably, facial appearance and psychosocial considerations are used in addition to dental characteristics when parents judge treatment need or dentists decide to recommend treatment.

\*\*\*\*\* Who Seeks Treatment? Demand for treatment is indicated by the number of patients who actually make appointments and seek care. Not all patients with malocclusion, even those with extreme deviations from the norm, seek orthodontic treatment. Some do not recognize that they have a problem; others feel that they need treatment but cannot afford it or cannot obtain it. Both the perceived need and demand vary with social and cultural conditions. More children in urban areas are thought (by parents and peers) to need treatment than children in rural areas. Another way to put this issue is "Does having a less than ideal smile affect the way people act and live?" This question was examined by the American Dental Association's Health Policy Institute in 2015.<sup>31</sup> An online survey was conducted by the Harris Poll, and nearly 15,000 responses from a randomly selected group of individuals age 18 and older were analyzed. The study group was evaluated as a whole, by economic status (low, middle, and high household income), and by age (18 to 34, 35 to 49, 50 to 64, and 65 or older). This national data set tells an interesting story related to dental esthetics. Twenty-nine percent of low-income adults and 28% of young adults (18 to 34) believed the appearance of their mouth and teeth affected their ability to interview for a job. That is over one-fourth of these groups. Twenty-five percent of all adults said they avoid smiling, 23% feel embarrassed, and 20% experience anxiety because of the condition of their mouth and teeth. But low-income and young adults felt the greatest impact, with a minimum of 30% in each of these two groups indicating that they experienced a problem related to the appearance of their teeth very often or occasionally. Finally, 82% of all responders agreed with the statement "It is easier to get ahead in life if I have straight, bright teeth." For instance, a

Brazilian study showed that adults with ideal smiles are considered to be more intelligent and have a greater chance of finding a job,<sup>37</sup> and a systematic review documented patient satisfaction after orthodontic treatment combined with orthognathic surgery.<sup>38</sup> The data can be summarized succinctly: If your dental and facial appearance differs significantly from that of your group, you benefit socially from correcting this. A number of studies have documented improvement in quality-of-life scores and self-esteem in children and adolescents,<sup>33</sup> and reports have shown quality-of-life effects after orthodontic treatment in children of African, European, and Asian descent.<sup>34–36</sup> Multiple studies have shown that this is true for adults as well, and the range of improvements in quality of life extend further than one might have thought. In Switzerland, where high average incomes and supplemental social programs mean that essentially all citizens who want treatment can get it, 56% of the 2012 population aged 15 to 24 years were receiving or had received orthodontic treatment.<sup>32</sup> Acceptance of treatment is at similar levels in the Scandinavian countries for the same reasons. Nevertheless, Medicaid and related programs support only a tiny fraction of the population's orthodontic care. 1.22). 1.23).