

Integrating oral health prevention into community-based services: two Italian experiences

Abstract

Purpose: To describe two community-based oral health prevention initiatives implemented in Italy and to illustrate how oral health promotion can be integrated into primary care and municipal services in line with World Health Organization (WHO) strategies for non-communicable disease (NCD) prevention and health equity.

Methods: This practice brief reports two descriptive experiences: (1) an oral health promotion program implemented within the *Case della Comunità* of ASST Valle Olona, where dental hygienists provide free, non-clinical oral health counseling as part of multidisciplinary primary care teams; and (2) a school-based oral health education initiative promoted by a municipality in Northern Italy in collaboration with primary schools and dental professionals. The initiatives are described based on program documentation and professional experience rather than on formal outcome evaluation.

Findings: Both initiatives demonstrate the feasibility of low-cost, equity-oriented oral health prevention in community settings. The *Case della Comunità* program reached more than 200 individuals within the first three months of implementation and targeted different life stages. The school-based initiative ensured universal access to oral health education and promoted preventive behaviors through the involvement of children, educators, and caregivers. Outcome data are not yet available; planned monitoring includes behavioral indicators and basic clinical indices.

Conclusion: Integrating oral health prevention into community-based services is feasible and policy-relevant. These experiences provide actionable examples for strengthening prevention, reducing oral health inequalities, and supporting the broader NCD agenda.

Keywords: community dentistry, public health, oral health prevention, dental hygiene

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Introduction

Non-communicable diseases (NCDs) are a leading cause of morbidity and mortality worldwide and represent a major challenge for health systems. In response, the World Health Organization (WHO)¹ has called for coordinated, people-centred strategies that prioritize prevention, equity, and integration within primary health care. The political declaration “*Equity and integration: transforming lives and livelihoods through leadership and action on noncommunicable diseases and the promotion of mental health and well-being*” represents a milestone by explicitly linking NCD prevention with health system strengthening and the social determinants of health.

Within this framework, oral health has been increasingly recognized as an integral component of the NCD agenda. Oral diseases- such as dental caries, periodontal diseases, and oral cancers- are among the most prevalent non-communicable conditions globally and share common modifiable risk factors with other major NCDs. Despite this recognition, oral health prevention has historically remained marginal within public health policies and insufficiently integrated into primary care services.

This practice brief presents two community-based oral health prevention experiences implemented within the Italian National Health Service and at the municipal level. These initiatives illustrate how oral health prevention can be operationalized through integrated, low-cost, and equity-oriented models aligned with WHO recommendations. The rationale for selecting these two experiences is to demonstrate that simple and affordable interventions can be effectively promoted at the community level in Italy.

Epidemiological context

National data confirm the persistence of significant oral health inequalities in Italy. The National Pathfinder on Children’s Oral Health in Italy, promoted in 2016 by the WHO Collaborating Centre for Epidemiology and Community Dentistry of Milan, reported a markedly higher prevalence of dental caries among preschool children with a non-European background compared with their European peers (72.6% vs. 41.6%; $p < 0.01$). Among 12-year-old children, approximately one quarter presented with gingival bleeding, and the mean number of teeth with cavitated lesions was 0.85 per subject.²

These findings highlight the strong association between oral diseases and social determinants of health and underscore the limitations of models based primarily on individual access to clinical dental care. They support the need for prevention strategies embedded within community and primary care settings that are capable of reaching vulnerable populations early in the life course.

Community-based prevention initiatives

Oral health promotion within *Case della Comunità*

A pilot prevention project was implemented within the *Case della Comunità* of ASST Valle Olona (Northern Italy), a key organizational model of primary health care designed to strengthen proximity services and multidisciplinary collaboration. This initiative represents a promising practice based on the regular presence of dental hygienists who provide free, open-access oral health counseling without delivering clinical dental procedures.

The activities focus on health promotion and primary prevention through individualized oral hygiene education, including guidance on toothbrush and toothpaste selection, caries prevention strategies, and practical support for effective and age-appropriate toothbrushing routines. The service targets preschool children, adolescents accompanied by their parents or guardians, new parents, and caregivers of people with disabilities.

Dental hygienists operate within multidisciplinary teams and are coordinated by the community dentist of the Valle Olona Dental Unit. They work alongside midwives, nurses, and vaccination physicians and participate in pre- and post-partum educational courses, thereby reinforcing continuity of prevention across different life stages. The program started in October 2024 and reached more than 200 individuals within the first three months; activities are ongoing. Individual counseling sessions last approximately 15 minutes and include tailored instructions, while group educational courses—usually involving 10–20 participants—last around one hour. Educational tools include mouth models, manual and electric toothbrushes, silicone brushes for infants, gauzes, and audiovisual materials.³

School-based oral health education at the municipal level

A second initiative is being implemented in the municipality of Pombia (Novara, Northern Italy), where oral health prevention is promoted through collaboration between the local administration, dental professionals, and primary schools. Oral hygiene education is delivered within the school setting and addressed to children, educators, and caregivers.⁴

This approach aims to strengthen oral health literacy and embed preventive behaviors within daily educational and family routines. By operating in schools, the intervention ensures universal access to preventive education and supports equity-oriented strategies.

Discussion and policy implications

These two experiences provide practical insights into how oral health prevention can be integrated into community-based services in line with WHO strategies for NCD prevention and primary health care strengthening. Both initiatives move beyond a treatment-oriented paradigm and emphasize prevention, empowerment, and early engagement, particularly among populations facing barriers to access to dental care.

From a policy perspective, the *Case della Comunità* model demonstrates that oral health promotion can be incorporated into primary care infrastructures without substantial additional resources. The non-clinical, counseling-based approach enhances feasibility, acceptability, and sustainability while reducing financial and organizational barriers to access. This model supports the principles of universal health coverage and contributes to addressing social inequalities in oral health. Planned monitoring includes a pre-counseling questionnaire on oral health behaviors and a follow-up visit after 3–6 months to assess effectiveness. For children, ICDAS scores and a simplified plaque index are recommended at baseline and follow-up. In cases of suspected severe early childhood caries, dental hygienists refer caregivers to the hospital dental unit to prevent disease progression and dental emergencies.⁵

Within this approach, dental hygienists play a key sentinel role in the community, not only by supporting chairside prevention but

primarily by educating individuals who may otherwise face barriers to accessing private dental care. Although dental hygienists in Italy are predominantly employed in private practices, rising social vulnerabilities and health disparities highlight the need to expand their role within community and public health settings. Dental hygienists are regulated through a three-year university degree and mandatory registration in a professional register; they practice on patients under dentists' indications in all settings and act autonomously as oral health educators.

The school-based initiative highlights the strategic role of municipalities and intersectoral collaboration. Schools represent a key setting for population-wide prevention, enabling access to entire cohorts regardless of socioeconomic status. Involving educators and caregivers enhances the diffusion and sustainability of preventive behaviors beyond the school environment.

However, scaling up such models requires supportive policy frameworks, standardized monitoring indicators, and stable governance and funding mechanisms. Without institutionalization at regional or national levels, community-based initiatives risk remaining isolated pilot projects.

Conclusion

These Italian experiences demonstrate that integrating oral health prevention into community-based services and primary care is both feasible and policy-relevant. Simple, low-cost, and prevention-focused interventions can contribute to reducing oral health inequalities when they are accessible, integrated, and population-oriented.

Embedding oral health within primary health care and municipal strategies represents a pragmatic approach to advancing equity, strengthening health systems, and supporting the broader NCD prevention agenda. Scaling up such models may play an important role in achieving WHO targets for non-communicable diseases and universal health coverage by 2030. These experiences provide actionable examples for policymakers and public health planners and support implementation at the national level.

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None

Conflicts of interest

The authors declare that there are no conflicts of interest.

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