



Original Article

지역사회 통합돌봄 기반의 방문 구강건강관리 활성화와 정책적 함의

변루나^{ID}

보건복지부

Activating home-visit oral health management based on community-based integrated care and its policy implications

Luna Byon^{ID}

Ministry of Health and Welfare of the Republic of Korea

Corresponding author: Luna Byon, Ministry of Health and Welfare, 13 Doum 4-ro, Sejong-si, 30113, Korea. Tel: +82-44-202-2840, Fax: +82-44-202-3939, E-mail: yoonbyon1@naver.com

Abstract

Objectives: This study aimed to examine evidence on regional disparities in home-visit oral health management and propose policy directions for national dental health programs. **Methods:** This study reviewed domestic literature published between 2010 and 2026, as well as government policy documents, focusing on the regional distribution of dental care resources, regional health determinants, oral health care for vulnerable populations, and the policy implications of home-visit oral health management and community-based integrated care. **Results:** The reviewed literature identified regional imbalances in dental resources, greater vulnerability in rural areas, and compounded barriers to dental care among individuals with limited mobility and substantial care needs. These findings suggest that home-visit oral health management may serve as a care-delivery strategy linked to community-based integrated care and professional dental referral pathways. **Conclusions:** To improve regional equity in oral health, public dental health policies should prioritize the allocation of resources according to regional needs, the integration of home-visit oral health management with community-based integrated care, and continuous performance evaluation.

Keywords: Delivery of health care, integrated; Dental health services; Health equity; Health policy

Introduction

South Korea has improved its overall public health status through the expansion of national health insurance and the continuous advancement of healthcare services. However, the asymmetrical distribution of regional healthcare resources and disparities in medical utilization remain major policy challenges, continuously discussed in terms of health equity [1,2]. The oral health sector consistently reports an extreme concentration of dental institutions and specialized personnel in metropolitan areas, imbalances in dental care utilization, and high rates of unmet dental needs in vulnerable areas like farming and fishing villages [3,4]. These regional disparities in resources and infrastructure strongly demonstrate that residential location differentially impacts accessibility to essential oral health services. In particular, the rapid acceleration of population aging and the resulting increase in care demands expose fundamental limitations in the existing outpatient-centered, fragmented dental service system. Health-vulnerable groups, including the elderly, disabled, and long-term care recipients, face difficulties visiting dental clinics due to physical mobility restrictions and functional declines; in fact, the unmet dental care rate is significantly higher among the elderly who experience

unmet general care needs [5]. This reality suggests that oral health issues among vulnerable populations should not be viewed merely as problems of geographical access or individual behavior. Instead, they must be addressed by activating home-visit oral health management and establishing community service delivery systems that tightly integrate medical and care services.

Recognizing these challenges, the government has presented the promotion of oral health equity and the strengthening of oral health management for vulnerable populations as core policy goals in the “2nd national oral health plan (2022–2026)” [6]. Furthermore, the government is expanding public oral health services based on public health centers by implementing the “Act on integrated support for community-based medical care and long-term care” and promoting demonstration projects for home-visit oral health management for the elderly [7,8]. This national policy shift represents a major paradigm shift. It integrates and expands public oral health services into an essential component of community-based integrated care, rather than confining them to fragmented prevention programs. However, despite this institutional foundation, there is still insufficient discussion on the specific execution strategies and policy implications required to stably establish home-visit oral health management in the field and organically fuse it into a multidisciplinary integrated care system. This study is a narrative review aimed at comprehensively examining regional oral health inequalities, home-based oral health care, and community-based integrated care—which have previously been discussed individually in existing literature—from a healthcare delivery system perspective, and proposing strategies to promote home-based oral health care and its policy implications in South Korea. A literature search was conducted using electronic databases including the Korea Citation Index (KCI), Korean Studies Information Service System (KISS), DBpia, KoreaMed, and the Research Information Sharing Service (RISS), alongside official publications and materials from government agencies such as the Ministry of Health and Welfare and the National Law Information Center. The search was performed using combinations of key terms including ‘region’, ‘oral health inequality’, ‘dental care-underserved area’, ‘unmet dental needs’, ‘home-based oral health care’, ‘visiting oral health care’, ‘community-based integrated care’, ‘community deprivation index’, and ‘public oral health services’. The search period was set from 2010 to 2026 to encompass the formulation period of the 3rd National Health Plan (HP2020, 2011–2020) [9], which established regional health equity as a primary national health policy goal and included oral health as a key priority area. Domestic peer-reviewed journal articles, policy reports from the Ministry of Health and Welfare, and government legislation published during this period were reviewed. The inclusion criteria comprised literature directly relevant to regional dental resources, dental care utilization, unmet dental needs, home-based oral health care, the community deprivation index, and community-based integrated care. Duplicate publications, articles without accessible full texts, and literature with low relevance to the research objectives were excluded. Therefore, this review aims to diagnose the structural causes of regional disparities in public oral health services by reviewing and synthesizing domestic studies and government policy documents. Based on this diagnosis, this study seeks to explore ways to activate home-visit oral health management linked with the community-based integrated care system and propose multifaceted policy implications to enhance the equity and effectiveness of future national oral health policies.

Analysis and discussion

1. Evidence and structural limitations of regional disparities in public oral health services

The regional imbalance of dental health resources extends beyond a simple issue of supply shortage; it represents a structural factor threatening the equity of the national oral health system. Previous domestic literature has consistently reported that dental institutions and specialized personnel are excessively concentrated in metropolitan areas, leaving rural regions with highly vulnerable access to dental care [3,4]. Indeed, studies that developed the Dental Care Vulnerability Index and the Regional Oral

Health Vulnerability Index revealed severe vulnerability levels in rural provinces, such as Gyeongbuk and Jeonnam [4]. Furthermore, research utilizing National Health Insurance Statistics and the Community Health Survey confirmed that rural county (gun) areas suffer from an absolute deficit of healthcare infrastructure and a significantly higher rate of unmet dental care needs compared to metropolitan areas [3]. However, addressing these disparities solely through the lens of quantitative resource deficiency possesses distinct limitations. Because the level of population aging, potential care demands, geographical accessibility, and socioeconomic characteristics vary by region, expecting uniform policy outcomes across all territories using conventional, one-size-fits-all resource allocation criteria is unrealistic [1,2]. In other words, regional disparities in public oral health services do not stem merely from an imbalance in supply volume; rather, they originate from the limitations of the current resource allocation structure, which fails to organically reflect the multifaceted “care and medical needs” of each region. Beyond individual health behaviors, the influence of regional-level health determinants on oral health equity is also profound. Regional gaps in oral health cannot be explained solely by individual voluntary efforts or habits; indeed, it has been proven that regions with higher socioeconomic deprivation tend to have more unfavorable overall health outcomes [1,2]. Furthermore, studies analyzing regional unmet dental care needs in the oral health field identified the degree of regional urbanization, residents' social positions, and physical access to medical resources as core factors determining inter-regional variances [10]. In terms of dental care utilization, horizontal inequity based on income levels continues to persist [11]. These evidences suggest that oral health should not be confined to the private sphere; rather, it must be interpreted in connection with the medical accessibility, socioeconomic environment, and level of healthcare infrastructure provided by the community. Therefore, a new policy alternative is required to fundamentally improve health determinants by integrating the fragmented public health and medical infrastructures within the community into a unified system. In particular, the physically and socioeconomically vulnerable populations experience the negative impacts of these regional disparities more intensively. Elderly individuals with functional limitations or those lacking proper care face a significantly higher risk of experiencing unmet dental care needs, with advanced age, living alone, economic inactivity, and low-income status presented as major factors exacerbating this vulnerability [5]. These findings clearly demonstrate that dental care accessibility is determined not merely by the geographical distance between home and clinic, but also by the subject's physical-functional limitations and domestic care conditions. Consequently, the oral health issues of vulnerable populations are not a matter of an individual's poor utilization of medical services. Instead, it is a national policy task that must be resolved by activating home-visit oral health management—directly reaching out to those unable to visit clinics due to physical limitations—and building a community-based integrated care system to support it. The evidence and policy implications of the major prior studies and policy documents reviewed in this study regarding regional disparities in public oral health services are summarized in <Table 1>.

Table 1. Evidence and policy implications on regional disparities in public oral health services

Dimensions	Evidence & key findings	Policy implications & linkage
Disparities in dental resources and supply	• Concentration of dental institutions and workforce in metropolitan areas [3,4] • High levels of vulnerability in rural areas such as Gyeongbuk and Jeonnam [4] • Low accessibility and high rates of unmet dental needs in county (gun) areas [3]	• Shift from simple quantitative supply standards to differential resource allocation reflecting regional care and medical needs [1–4] • Need to expand infrastructure for “home-visit oral health management” in vulnerable areas to overcome geographical barriers [3,4]
Regional-level health determinants	• Discrepancies between socioeconomic deprivation levels and regional health statuses [1,2] • Degree of urbanization and social position identified as major determinants of disparities [10] • Persistent horizontal inequity in dental care utilization based on income levels [11]	• Paradigm shift to recognize dental health issues as problems of the socioeconomic environment and infrastructure, rather than individual behavior [1,2,10,11] • Requirement for a “community-based integrated care” system that integrates health, medical, and welfare infrastructure to fundamentally improve regional environments [6,7]
Overlapping risks of vulnerable populations	• Higher risk of unmet dental care among older adults with functional limitations and care deficits [5] • Deterioration of medical accessibility among the elderly, those living alone, the economically inactive, and low-income groups [5] • Influence of physical and care conditions extending beyond geographical distance [5]	• [Policy implication] These findings suggest the need to consider residence-based home-visit oral health management for vulnerable populations who have difficulty accessing dental clinics because of physical limitations [5,6,8] • Home-visit oral health management must be organically linked with multidisciplinary case management networks within the integrated care system [7,8]

2. Policy significance and implications of community-based integrated care linked with home-visit oral health management

Home-visit oral health management is not merely an alternative treatment service; it is a core policy tool that organically connects diverse public health, medical, and welfare delivery systems within the community. Recently, domestic public oral health policy has moved away from traditional, public health center-centered, fragmented prevention programs, expanding its scope into home-visit oral health management closely linked with community-based integrated care [6,8]. This paradigm shift extends beyond the superficial meaning of relocating the physical space of service delivery from medical institutions to homes and residential areas. It holds profound policy significance as an “innovative transition of the service delivery system” to provide sustainable and comprehensive oral health management to vulnerable populations whose medical accessibility is severely limited. According to preceding intervention studies, home-visit oral health management targeting institutionalized elderly individuals demonstrated significant positive effects on improving oral hygiene and functions [12]. Furthermore, comprehensive analyses of related literature have consistently emphasized the necessity of providing customized services that consider the multifaceted characteristics of recipients and establishing community-linked networks [13]. However, the quantitative expansion of home-visit services does not inherently guarantee ultimate improvements in oral health. Even if oral health issues are detected early through home-visit management, the health-improving effects will inevitably remain limited if these findings are not properly linked to the necessary specialized oral health services. Therefore, to activate home-visit oral health management, establishing an organic treatment referral network with specialized medical institutions must inevitably accompany primary care. In this context, community-based integrated care serves as a crucial policy foundation that incorporates oral health as an essential component of the overall community healthcare system, rather than confining it to a fragmented dental sector. Currently, South Korea is expanding its community-centered integrated care system at the national level alongside the implementation of the “Act on Integrated Support for Community Care, such as Medical and Long-term Care” [7]. Concurrently, the Ministry of Health and Welfare is actively promoting policies to

link public health center-based home-visit oral health management with the integrated care system through demonstration projects for home-visit oral health management for the elderly [8]. This represents an encouraging policy attempt to expand oral health not as an isolated domain, but as an organic component of a community-based integrated care, health, and medical network. Given that care vulnerability has been proven to be a key factor exacerbating the risk of unmet dental care needs [5], future home-visit oral health management must transcend operating as a detached, fragmented project. Instead, it must establish a robust, multidisciplinary linkage structure that shares public health, medical, and welfare services and infrastructure within the broader framework of the community-based integrated care system. This approach embodies the ultimate policy implication of activating home-visit oral health management grounded in community-based integrated care.

3. National oral health policy directions and strategic tasks

1) Development of an equity-oriented public oral health service guarantee system

Given the distinct disparities in regional dental resources and service delivery conditions [3,4], future public oral health policies must strengthen the guarantee system to minimize inter-regional service gaps. This approach implies clearly defining the minimum scope of services that the state must guarantee, rather than applying uniform projects to all regions. In other words, an equity-based approach is required to preferentially allocate resources to high-risk areas and vulnerable populations. In particular, institutional foundations must be established to ensure that essential public services—such as prevention-oriented services, oral health management for high-risk groups, home-visit oral health management, and dental care referrals—are provided above a certain baseline level, regardless of regional circumstances.

2) Shifting to a region-specific need-centered resource allocation system

To ensure the efficient delivery of public services, it is essential to shift toward a resource allocation system that accurately reflects regional needs. Prior literature has provided objective indicators to identify regional vulnerabilities through the Dental Care Vulnerability Index and the Regional Oral Health Vulnerability Index [4], while regional deprivation and socioeconomic deficiencies have been reported as critical factors explaining overall health status and medical utilization [1,11]. Therefore, future resource allocation must move away from past population size-centered approaches and place actual regional needs at the core. Specifically, indices such as the dental care vulnerability index, regional deprivation levels, the proportion of the elderly population, and care demands should be utilized to designate priority support areas for public oral health programs, including home-visit oral health management. This approach does not represent preferential treatment for specific regions; rather, it is a core strategy to enhance health equity across regions by concentrating policy support on areas facing significant health disadvantages.

3) Establishing home-visit oral health management as a core community-based integrated care delivery system

Establishing home-visit oral health management as a core delivery system of community-based integrated care is the most critical policy implication of this study. Even with identical policies, dental health resources, the operational capacities of public health centers, and community cooperation networks vary distinctly across regions [3,4]. Therefore, the practical effectiveness of a policy is determined not merely by whether a project is introduced, but by how stably it is operated within the community and how organically it is linked with other welfare resources. National oral health policies must develop “regionally tailored operational models for home-visit oral health management” that account for local dental resources, integrated care foundations, and public health center infrastructures. Home-visit oral health care should be considered a complementary strategy to expand regional dental resources, rather than a substitute for them. Furthermore, successful implementation requires the simultaneous establishment of regional workforce capacity, mobile dental clinic infrastructure, appropriate fee-and-reimbursement systems, and referral systems to specialized dental institutions. Furthermore, when home-visit oral health management is organically integrated with community case management and local dental institutions, it can substantially enhance dental care accessibility for the elderly with mobility

limitations and health-vulnerable groups, thereby mitigating regional service gaps.

4) Establishing an equity-centered performance evaluation and feedback system

Finally, policy performance must be evaluated and fed back with a central focus on improving equity. The purpose of home-visit oral health management based on community-based integrated care does not lie in a simple, quantitative service expansion. Its ultimate goal is to reduce unmet dental care needs among recipients with low accessibility to dental care and to enhance regional oral health equity. Given that the current demonstration projects for home-visit oral health management for the elderly are designed to compare and evaluate outcomes by regional types to review future expansions [8], the future policy evaluation framework must also undergo a transitional shift. In other words, the framework must move away from simple performance-based indicators—such as the number of visits or participants—and introduce outcome indicators, including dental care referral rates, continuous management rates, improvements in unmet dental care needs, and the degree of mitigating regional gaps. When a feedback system is established to continuously analyze these region-specific operational outcomes and reflect them in subsequent policy designs, both the effectiveness and equity of home-visit oral health management can be achieved simultaneously. The policy tasks and key contents discussed above are summarized in <Table 2>.

Table 2. Proposed policy tasks for community-based integrated home-visiting oral health care to enhance regional oral health equity

Policy direction	Key policy tasks	Core indicators & objectives
1. Establishing public service coverage	Providing essential public services with equity	• Define the minimum scope of nationally guaranteed services • Prioritize resource allocation for high-risk areas & vulnerable groups • Institutionalize prevention, high-risk care, & home-visiting care
2. Shifting resource allocation	Moving from population-based to regional-need-based	• Reflect dental care vulnerability & socioeconomic deprivation indices • Select priority areas based on elderly population & care demands • Improve equity by concentrating policy support on disadvantaged areas
3. Anchoring home-visiting care	Building a community-based integrated care delivery system	• Develop customized regional operation models for home-visiting care • Link public health center infrastructure with community welfare resources • Enhance dental care accessibility for homebound elderly & vulnerable groups
4. Implementing evaluation & feedback	Shifting from quantitative expansion to equity-centered evaluation	• Move away from simple performance metrics (number of visits/participants) • Introduce indicators like dental referral rates & unmet needs reduction • Analyze regional gap narrowing to inform future policy design

Conclusion

This review synthesized prior domestic literature and government policy data to diagnose the structural causes of regional disparities in public oral health services. Furthermore, it explored strategies to activate home-visit oral health management based on community-based integrated care as an alternative solution, alongside its corresponding policy implications. The analysis revealed that inter-regional gaps in oral health represent a multi-faceted structural issue driven not only by imbalances in dental health resources but also by the complex interplay of socioeconomic characteristics, medical accessibility, and care demands. In particular, vulnerable rural regions and health-vulnerable populations suffered from a compounding overlap of unmet dental care

needs, physical functional limitations, and gaps in general care. These findings from the reviewed literature suggest that future public oral health services should consider approaches that extend beyond simple resource expansion. Policy makers should consider a residence-centered service delivery system that reflects the care needs of vulnerable populations.

In this context, the recently promoted “Second Basic Plan for Oral Health Services,” “demonstration projects for home-visit oral health management for the elderly,” and the “Act on Integrated Support for Community Care, such as Medical and Long-term Care” provide a crucial policy foundation for institutionalizing home-visit oral health management linked with community-based integrated care. However, for these policies to translate into substantial improvements in oral health equity, regionally tailored operations that account for local service delivery conditions must be prioritized. Concurrently, an organic linkage must be established between home- and community-based visit systems and specialized dental care institutions. Furthermore, this process must be accompanied by the establishment of a multidisciplinary cooperation framework within the community-based integrated care system—bridging healthcare and welfare services—as well as continuous, indicator-based policy evaluations.

This study is a narrative review focused primarily on prior domestic literature and government policy data; therefore, it cannot be ruled out that some relevant literature may have been excluded based on the search strategy and inclusion criteria. Furthermore, future empirical studies are warranted to verify the practical feasibility and effectiveness of the policy directions proposed in this study. In conclusion, this review provides a framework for discussing the policy value and implementation tasks of activating home-visit oral health management grounded in community-based integrated care as a response to regional oral health disparities. Future national oral health policies must move beyond the conventional paradigm focused on universal service supply and explicitly establish “inter-regional equity” and “care-centered approaches” as their core values. Specifically, public health authorities should strategically allocate home-visit oral health management resources based on localized regional needs, while continuously solidifying the role of public oral health services within the broader community-based integrated care framework.

Notes

Author contributions

The author fully participated in the work performed and documented truthfully.

Conflicts of interest

The author declared no conflicts of interest. The views expressed in this article are those of the author and do not necessarily represent the official position of the Ministry of Health and Welfare.

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Ethical statement

This study is a narrative review based on previously published literature and publicly available government documents. It did not involve human participants or animals, and therefore did not require Institutional Review Board approval.

Data availability

All materials analyzed in this review are the published articles and publicly available government documents cited in this article.

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지역사회 통합돌봄 기반의 방문 구강건강관리 활성화와 정책적 함의

초록

연구목적: 본 연구는 지역별 구강 건강 관리 서비스 제공의 불균형을 확인하고, 국가 구강 건강 정책의 방향을 제시하는 데 있다. **연구방법:** 본 연구에서는 2010년부터 2026년까지 발표된 국내 문헌과 정부 정책 문서를 검토하여 치과 진료 자원의 지역별 분포, 지역별 건강 결정요인, 취약계층을 위한 구강 건강 관리, 그리고 방문형 구강 건강 관리 및 지역사회 기반 통합 관리의 정책적 함의에 초점을 맞추었다. **연구결과:** 검토된 문헌에 따르면, 치과 자원의 지역별 불균형, 농촌 지역의 취약성 증가 그리고 이동이 불편하거나 집중 구강 관리가 필요한 사람들의 치과 진료 접근성 저하 등의 문제가 확인되었다. 이러한 결과는 방문형 구강 건강 관리가 지역사회 기반 통합 관리 및 전문 치과 진료 연계 시스템과 결합될 필요가 있음을 보여주었다. **결론:** 지역별 구강 건강의 형평성을 개선하기 위해 구강 건강 정책은 지역별 요구에 따른 자원 배분, 방문형 구강 건강 관리와 지역사회 기반 통합 관리의 연계, 그리고 지속적인 성과 평가를 우선적으로 고려해야 한다.

주요어: 의료 서비스 제공, 통합; 구강 건강 서비스; 건강 형평성; 보건 정책