



Empowering non-governmental organizations to improve the older adults' oral health in Hong Kong with a sustainable model of community-based outreach



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Strategic Theme: Community Engagement for Governance and Law

Summary of the impact



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- HKU Dentistry has been **collaborating** with several non-governmental organizations (NGO) in co-organizing community-based dental care since 2020.
- HKU Dentistry has **developed** a sustainable model with an NGO to promote oral health of the older adults.
- HKU Dentistry has been **training** dental professionals, dental students, and staff in NGO and elderly centers to provide dental community service.
- HKU Dentistry has been **monitoring** the oral health of older adults.



Summary of the impact

- 800+ older adults received free dental care services
- The project raised dental awareness of the older adults.
- The project enhanced oral health knowledge of the older adults.
- The project offered oral health care plans for older adults
- The project informed older adults of the available source and support of oral health care.



HKU ANNUAL REPORT 2023

OUTREACH FOR THE ELDERLY



More than 90% of older people have dental caries and around half of them remain untreated, often put off by a lack of dental knowledge or the cost of dental care. While the Hong Kong Government offers several dental care services, these are only available to limited groups and most older adults have difficulty choosing and accessing an appropriate service. To address this problem, the Faculty of Dentistry has been working with an NGO to establish a community-based outreach programme in community centres for the elderly.

Volunteer dental professionals do check-ups, basic procedures and dental care promotion, while the NGO follows up with advice on available services, either at government clinics or their affiliated charitable dental clinics. The programme has helped more than 700 elderly in the past three years. The Faculty coordinates the programme and provides an outreach service to train dental professionals and staff in elderly community centres. "This model is sustainable and it reaches more people who might not otherwise get dental care. We hope it can be adopted by the government and become a community-wide service in future," said Dr Ollie Yu Yiru, Clinical Assistant Professor, who is leading the project.



The Faculty of Dentistry has partnered with an NGO to establish a community-based outreach programme in community centres for the elderly.

INCLUSIVE EMPLOYMENT FOCUS

More than 500,000 Hong Kong people have disabilities and their job prospects are discouraging. Their unemployment rate is double that of the general population and fewer than half of people with disabilities who have post-secondary qualifications are employed. A three-year Jockey Club-funded project, launched in 2020, is trying to improve the situation by raising awareness and designing collective action. The Centre for Civil Society and Governance is the convening organisation and is working with four partner NGOs.



As a resource-matching platform connecting different sectors, the 'InMatch' mobile app fosters a conducive environment in which communities of interest can engender a socially inclusive and cohesive society, while also facilitating more efficient and effective allocation of community resources.

Early on, the Centre conducted a diagnostic study of the current situation and policy responses, followed by nine public seminars attended by more than 480 stakeholders to identify key areas of improvement. It has also created an online platform of information for people with disabilities, employers, social sector practitioners and other interested parties, as well as a mobile application linking to community resources. The next phase, launching in 2024, will reach out to business organisations and promote the benefits of inclusive employment, given that multiple overseas studies show it can improve staff retention, profitability and total shareholder return.

影響摘要



- 自2020年起，香港大學牙醫學院與多家非政府組織 (NGO) 合作舉辦社區牙科服務活動。
- 香港大學牙醫學院與非政府組織合作開發了一種可持續的促進長者口腔健康的社區服務模型。
- 一直以來，香港大學牙醫學院培訓專業牙科醫生、牙科學生以及非政府組織及日間中心的工作人員，為社區提供牙科服務。
- 香港大學牙醫學院同時也一直在監測香港長者的口腔健康狀況

影響摘要



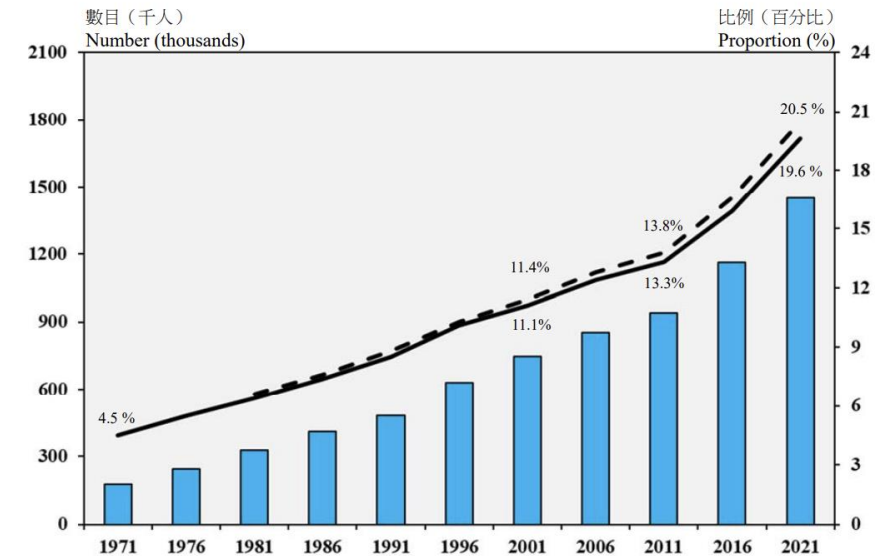
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- 800多名長者獲得免費牙科保健服務
- 該項目提高長者的牙科保健意識
- 該項目增強長者的口腔健康認知
- 該項目為長者提供口腔健康保健計畫
- 該項目為長者介紹香港可獲得口腔保健的資源和支持。

Underpinning Research



- 1.3M people in Hong Kong aged 65 or above
- More than 95% of the older adults are suffering from dental caries
- Almost 100% of the older adults have gum disease
- Dental care need is large and increasing for older adults



2021 population census
2011 Oral Health Survey

Underpinning Research



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- Most non-institutionalized older adults are NOT covered by dental care subsidy
- Many of them are financially vulnerable
- They are unaware of their dental needs
- They do not have enough dental knowledge
- They have difficulty in choosing and accessing an appropriate dental care service

3. Oral Health Status of Older Adults in Hong Kong

The oral health of older adults in Hong Kong is far from satisfactory, with high prevalence in both caries and periodontal disease. According to the 2011 oral health survey [20], 48% of the non-institutionalized older adults (aged 65–74) had untreated dental caries, with 1.3 decayed teeth found per older adult. Almost 90% had bleeding gums and periodontal attachment loss of more than 4mm on at least half of their teeth. When

Underpinning Research



- Shortage of dentist in HK (2,786; 0.37/1000)
- Severe shortage of dentist in public healthcare sector
- Insufficient dental resources is a challenge to appropriate dental care
- Community-based outreach programmes is the most effective and cost-effective way to improve oral health

Knowledge to be Exchanged



1. Capacity in organizing community dental care
2. Knowledge on oral hygiene maintenance
3. Oral health awareness
4. Knowledge on dental disease prevention
5. Knowledge on oral health care schemes



Engagement Process

1. HKU Dentistry collaborates with NGOs to enhance their capacity in providing community dental care.
2. Train dental professionals and students to provide dental community service to the older adults.
3. Train oral health providers to give individualized dental consultation to the older adults.
4. Generate and distribute pamphlets on oral hygiene maintenance.



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牙托護理



上颌假牙托 (上排假牙)



下颌假牙托 (下排假牙)



部份假牙托

- 用牙刷，視液/洗潔精和水徹底清潔假牙托
- 每日至少清潔假牙托兩次
- 臨睡前除下假牙托浸在水中

References:
1. American Dental Association (ADA). (2015). Oral Care for Older Adults. Retrieved from www.ada.org
2. Oral Health and Aging. Retrieved from www.ada.org
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長者口腔衛生護理知識



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刷牙



刷牙是去除牙菌膜的最好方法



牙齒的外側面



牙齒的內側面



牙齒的內側面



牙齒的咀嚼面

- 將牙刷刷毛成45度角斜放於牙齒與牙肉之間的位置
- 清潔所有牙齒表面和舌頭

含1350-1500 PPM 氟化物牙膏
大約一顆豌豆大小

早晚用含氟牙膏刷牙
刷牙後吐淨泡沫 不需漱口



牙線



牙線可以清除用牙刷難以清潔的牙菌膜



取出約20-30厘米長的牙線
牙線兩端分別纏在左右手中指上



用雙手的拇指及食指操控一段約2-3厘米的牙線段



把牙線左右拉動，慢慢滑進牙縫內，並拉到牙齦溝最深的地方；牙線彎成「C」形，在牙齒其中一側面上下拉動，然後把牙線緊貼另一側面重複上下拉動的動作；對其餘的牙齒重複此方法。

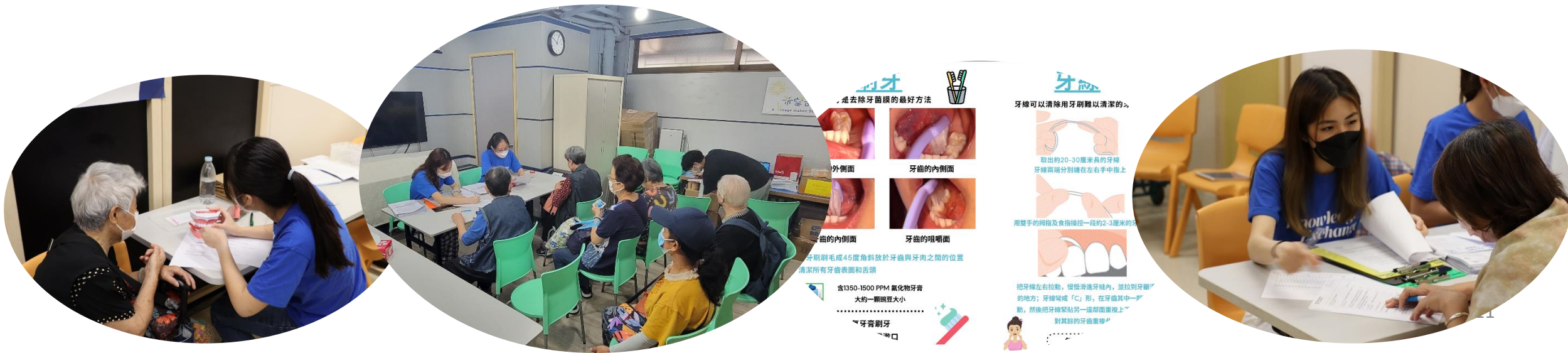
每天最少使用牙線清潔一次



HKU Engagement



1. HKU Dentistry offers training and consultation to NGOs.
2. We trained dental students to disseminate dental knowledge to the community.
3. We disseminated pamphlets about correct oral hygiene practice to enhance dental knowledge of the elderly participants and their family.



HKU Engagement

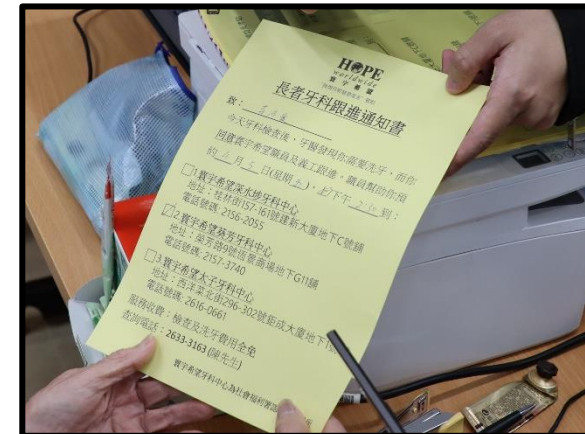


- 
- A background image showing dental professionals in blue scrubs and masks performing a dental check-up on an elderly patient. The scene is set in a clinical environment with various dental equipment and supplies visible.
4. We performed dental check-up for the elderly participants and gave individualized dental consultation to raised their awareness of their oral health status.
 5. We gave personalized oral health instruction to the elderly participants to enhanced their dental knowledge and self-care capabilities.
 6. We provided preventive therapy to the caries affected participants.

NGO Engagement

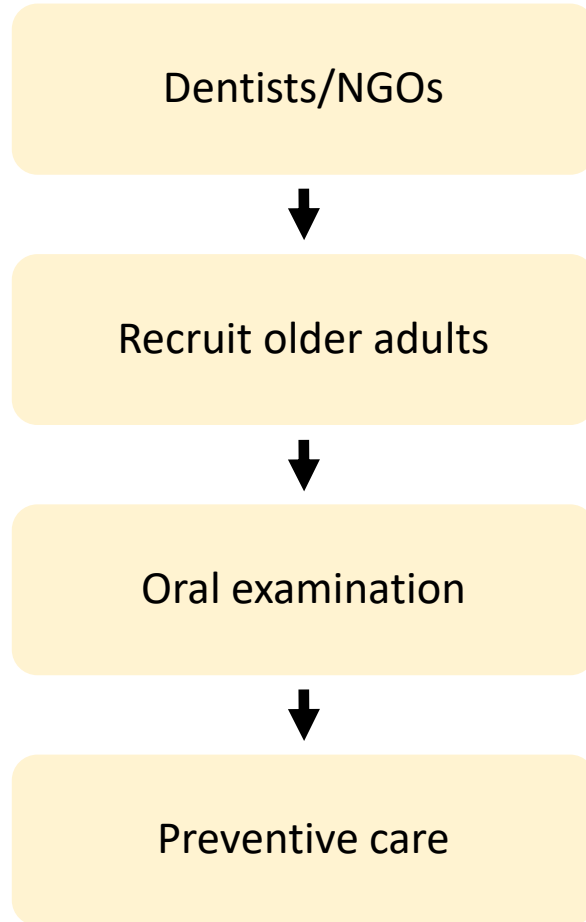


1. NGO partners coordinate with the elderly centers for outreach activities.
2. NGO partners give advice on the oral health care service and the available dental allowance in Hong Kong.
3. NGO partner (Hope Worldwide) provides follow up dental management for the older adults after oral examination in outreach in their affiliated charitable dental clinics.

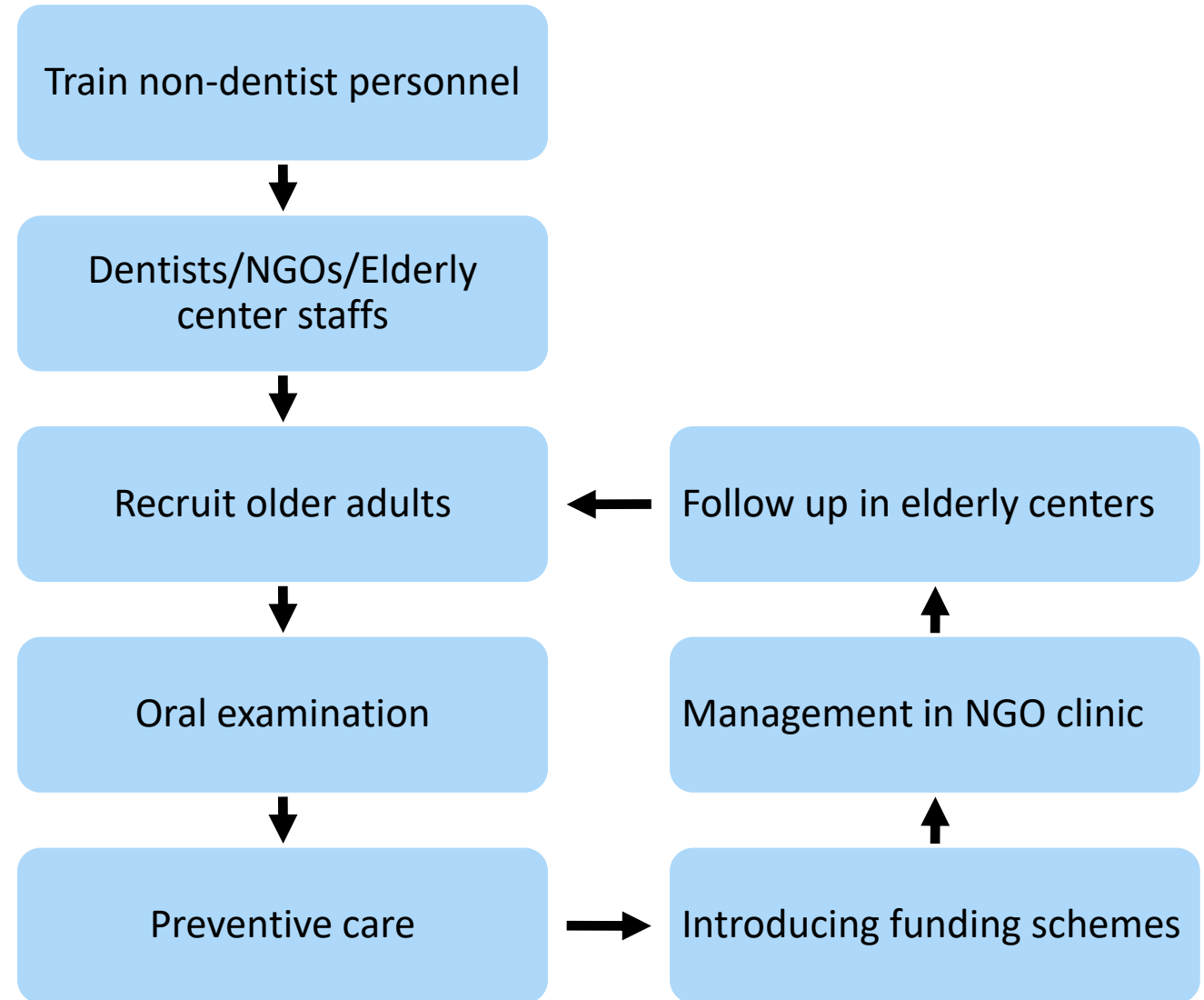


Impact Achieved

Establish a sustainable outreach model



Conventional community-based outreach



Sustainable community-based outreach

Impact Achieved



Provide accessible, affordable and available primary oral health care service

- HKU Dentistry empowers NGO to organize oral health promotion events to older adults in daycare centers
- These events are accessible, affordable and available primary oral health care service for the older adults in the community
- Older adult participants received free dental check-up, preventive dental therapy, and oral health education



Impact Achieved



Provide training to care providers for dental community service

- Staff in NGOs
- Staff in elderly centers
- Dental professionals
- Dental students



Impact Achieved



Promote the oral health awareness

1. 97.92% of the elderly participants were satisfied with the event and the overall arrangement.
2. 98.18% of the elderly participants reflected increased oral health awareness.
3. 95.02 % of the elderly participants reflected raised dental help knowledge.

Year	Total no	Overall Satisfaction	Raised oral health awareness	Increased oral health knowledge
2020-2021	169	99.4%	97.61%	90.47%
2022-2023	284	99.3%	97.18%	95.07%
2023-2024	424	95.06%	99.76%	99.53%
2020-2024	877	97.92%	98.18%	95.02%

Impact Achieved



Evaluate the dental self-care capacity

- Evaluation on oral health related behaviors of the elderly participants

Oral health related behaviors of participants	2020-2021	2022-2023	2023-2024	2020-2024
Participants(%) performing oral hygiene measures \geq 2 times/day	77.38 %	90.84%	84.62%	84.28%
Participants(%) using dental floss or interdental brush	27.38%	32.39%	58.56%	39.44%
Participants(%) visiting a dentist more than 3 years ago or never	33.33 %	42.96%	26.35%	34.21%

Impact Achieved

Monitor oral health status

- Evaluation on oral health status of the elderly participants

Oral health status of participants	2020-2021	2022-2023	2023-2024
Mean VPI	0.55	0.26	0.24
Mean DMFT	16.3	16.1	15.77
Mean no. of decay teeth	2.51	0.67	0.95
Mean no. of missing teeth	9.86	9.68	9.98
Mean no. of filling teeth	3.91	5.71	4.84
Mean no. of remaining sound teeth	22.13	15.93	16.03



Chawhuaveang et al. *BMC Oral Health* (2024) 24:53
<https://doi.org/10.1186/s12903-023-03835-w>

BMC Oral Health

RESEARCH

Open Access



Erosive tooth wear among non-institutionalised older adults in Hong Kong: a cross-sectional study

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Abstract

Background Non-institutionalised older adults is the majority of older adults in Hong Kong. The study aimed to examine erosive tooth wear (ETW) and its association with dental conditions and oral hygiene habits among non-institutionalised older adults in Hong Kong.

Methods This cross-sectional study recruited dentate adults aged 60 or above from nine elderly daycare centres in the five main districts of Hong Kong. The study consists of a questionnaire survey and a clinical examination. A researcher used a questionnaire to collect the participants' demographic information, oral hygiene habits such as toothbrushing habits and dental visit behaviour. A calibrated examiner performed an oral examination in the daycare elderly centre to assess the ETW using basic erosive wear (BEWE) criteria. Oral hygiene was recorded using visible plaque index. Prosthetic status was recorded using the World Health Organization criteria. Logistic regression was used to examine the correlation between ETW and the dental conditions and oral hygiene habits.

Results This study recruited 433 dentate adults and 333 adults were female (77%). Their age ranged from 60 to 99 years and their mean age was 74 years (SD = 7). They all had ETW (BEWE > 0). Over half of them (57%) had BEWE score of 3, indicating severe ETW. Analysis showed increasing age (OR = 1.030, $p = 0.029$) and older adults with untreated dental caries had higher odds (OR = 1.822, $p = 0.002$) of presenting severe ETW. No other associations were found between the ETW and the factors studied.

Impact Achieved



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Promote disease prevention

- This project emphasizes and reinforces the concept of oral disease prevention in the community
- This project allows the detection and treatment of the dental problems in an early stage for older adults
- This project helps relieve economic burden from untreated dental problems.



Summary of Impact Achieved



1. Establish a cost-effective and sustainable community-based outreach dental care model
2. Provide an accessible, affordable and available primary oral health care service to the older adults.
3. Train health care providers to provide dental community service
4. Promote the oral health awareness of the community
5. Enhance the dental self-care capacity of the older adults
6. Monitor oral health status of the older adults
7. Strengthen the preventive dental care of the community



Media column



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OUTREACH FOR THE ELDERLY



More than 90% of older people have dental caries and around half of them remain untreated, often put off by a lack of dental knowledge or the cost of dental care. While the Hong Kong Government offers several dental care services, these are only available to limited groups and most older adults have difficulty choosing and accessing an appropriate service. To address this problem, the Faculty of Dentistry has been working with an NGO to establish a community-based outreach programme in community centres for the elderly.

Volunteer dental professionals do check-ups, basic procedures and dental care promotion, while the NGO follows up with advice on available services, either at government clinics or their affiliated charitable dental clinics. The programme has helped more than 700 elderly in the past three years. The Faculty coordinates the programme and provides an outreach service to train dental professionals and staff in elderly community centres. "This model is sustainable and it reaches more people who might not otherwise get dental care. We hope it can be adopted by the government and become a community-wide service in future," said Dr Olive Yu Yiu, Clinical Assistant Professor, who is leading the project.



As a resource-matching platform connecting different sectors, the iMatch mobile app fosters a conducive environment in which communities of interest can engender a socially inclusive and cohesive society, while also facilitating more efficient and effective allocation of community resources.



More than 500,000 Hong Kong people have dual job prospects are discouraging. Their unemployment is double that of the general population and fewer people with disabilities who have post-secondary are employed. A three-year Jockey Club-funded project, launched in 2020, is trying to improve the situation awareness and designing collective action. The C Society and Governance is the convening organ working with four partner NGOs.

Early on, the Centre conducted a diagnostic study situation and policy responses, followed by nine attended by more than 480 stakeholders to identify areas for improvement. It has also created an online platform for people with disabilities, employer practitioners and other interested parties, as well application linking to community resources. The project, launching in 2024, will reach out to business organisations to promote the benefits of inclusive employment, and overseas studies show it can improve staff retention and total shareholder return.

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Medical Inspire 醫·思維
2024年5月31日週五 下午1:33



老人口腔健康 | 香港9成長者有蛀牙！港大牙科推長者牙科保健外展服務，助改善老人口腔健康

老人口腔健康 | 健康口腔對長者身心健康非常重要，讓他們進食、吞嚥說話不受困擾，保持生活質素，綻放自信笑容。在香港，九成長者有蛀牙，幾乎所有65歲以上的長者患有牙齦疾病。有見及此，港大牙科推出長者牙科保健外展服務，助改善老人口腔健康。

撰文：余逸如教授@香港大學牙醫學院 | 責任編輯：海月 | 圖片來源：港大牙醫學院 | 資料來源：港大牙醫學院

MEDICAL INSPIRE

撰文：余逸如教授@香港大學牙醫學院 | 責任編輯：海月 | 圖片來源：港大牙醫學院 | 資料來源：港大牙醫學院

老人口腔健康 | 香港9成長者有蛀牙！港大牙科長者牙科保健外展服務，助改善老人口腔健康

在香港，九成長者患有蛀牙，幾乎所有65歲以上的長者患有牙齦疾病。長期不良習慣（例如高糖、吸煙和飲酒）、手部不靈活難以清潔牙齒、其他慢性疾病等，者口腔健康日漸衰退，最常見的情況就是蛀牙和牙周病。

然而礙於經濟困難、行動不便、資訊不足等原因，很多長者未必願意到牙科診所查和護理服務，令口腔情況變差。開展在社區的主動接觸長者的牙科外展工作，補這個空缺。

香港大學牙醫學院於2023至2024年度展開知識交流計劃「Empowering a non-governmental organization to develop a sustainable model of community-based outreach to improve the older adults' oral health in Hong Kong」（賦能非政府開發可持續的社區外展服務模式，以改善香港長者的口腔健康），以社區外展服務，滿足長者的牙科保健需求，改善他們的口腔健康，克服香港牙醫人手不足的

- 牙醫培訓之路 | 中二至中四學生體驗牙醫培訓之路、試做印模為「患者」洗牙

透過這個計劃，牙醫學院為牙科保健從業員提供外展服務的技術訓練，與非政府作舉辦牙科外展活動；培訓非政府組織和長者中心的員工，提升他們的口腔健康為長者提供基礎的口腔健康護理；與非政府組織的牙科診所合作，跟進長者治療辦教育活動，向長者推廣口腔健康的重要性，並提供申請資助牙科服務的資訊。



KNOWLEDGE EXCHANGE | MAY 2024 | BULLETIN

Community-based Solutions

Partnering with NGOs to improve elderly oral health



An elderly patient undergoes a dental check-up.

In Hong Kong, nine out of ten elderly suffer from tooth decay, and almost all of them experience gum disease. Barriers such as financial difficulties, mobility challenges and lack of information, have prevented many seniors from receiving necessary dental care, further worsening their oral health.

The oral health challenges faced by the elderly in Hong Kong have prompted the Faculty to launch a Knowledge Exchange project, "Empowering a non-governmental

<https://vimeo.com/user133138122/review/954285802/9c4a7c08b8>