

2023 国民健康洞察及干预探索

安利公司

摘要

促进健康生活方式养成对于提升人民健康素质、助力人口高质量发展意义重大，全球多国通过国家健康战略和健康促进行动促进健康生活方式养成。基于“健康中国 我们行动”项目，围绕健康生活方式现状洞察、干预举措、成果评价三个阶段进行追踪研究，结果显示，全面健康得分整体情况仍不理想，年轻人得分偏低，健康社群参与频率高的群体得分较高。健康困扰多样且比例较高，体重/体型管理困扰高居健康困扰榜首，心理健康问题普遍存在，社交关系拓展需求高，健康意识薄弱和“难坚持”“拖延症”问题成为阻碍健康生活方式最重要的因素。针对发现的健康痛点，提供权威健康知识课程和健康社群支持，取得较好效果。全面健康状况明显改善，各项健康困扰明显表现为不同程度缓解，体重管理取得明显成效，心理健康问题明显改善，社会支持来源增加，志同道合的兴趣社群成员支持比例明显提高。健康生活方式践行日益向好，膳食等不良健康习惯有所改善。社群活动频率高的群体以上改善均更加明显。健康观念、健康知识、身体状况的改善和同伴的陪伴监督是改善健康生活方式的重要原因。考虑到中国的国情决定中国必须关口前移，预防为主，以及全面健康现状仍不容乐观的问题，未来切实改善健康需解决“知识欠缺”和“知易行难”两大障碍，促进健康生活方式养成。可考虑采用基于线上线下的健康社群模式，并加强其与国家健康促进相关活动的整合研究。

一、全球健康战略及健康行动

健康是全球全人类的共同追求。联合国 2030 年可持续发展议程(SDGs) 中将健康福祉确定为 17 个重要目标之一，提出“确保健康的生活方式，促进各年龄段所有人的福祉”。根据世界卫生组织(WHO)的定义，健康不仅是疾病或虚弱的缺乏，而是身体、心理和社会福祉的完整状态。WHO 将健康生活方式视为提高全球健康水平的关键因素之一，提出在现代社会，决定健康的因素中，个人行为与生活方式的影响占到 60%。全球疾病负担研究发现，高血压、膳食、低体力活动、超重肥胖等因素，对疾病引起的过早死亡带来重要影响，例如，2019 年，在 25 岁及以上成年人中，饮食风险导致了 1.88 亿伤残调整生命年(DALYs)和 794 万死亡。

为此，世界卫生组织提出多项全球行动计划，如全球非传染性疾病预防计划等等，敦促各国针对不健康饮食、缺乏体育活动、烟草使用和酒精滥用等生活方式展开行动，发布一系列健康生活方式相关的全球策略和指导原则，并以“健康城市”建设作为重要抓手，支持城市和社区采取全面和系统的方法来改善居民的健康和福祉。全球多国也制定了国家健康战略，并以此为统领，建立多部门协作的管理和服务机制。如美国的“健康人民”(Healthy People)系列计划和“国民健康素养提升行动计划”(National Action Plan to Improve Health Literacy)、日本的“健康日本 21”、加拿大健康促进战略等计划，中国的“健康中国 2030”也是典型的代表。

但在大的战略背景下，居民健康水平的提升和健康生活方式的改善都还面临着多重挑战。中国发展研究基金会发布的《2022 国民健康生活方式洞察及干预研究报告》显示，尝试过但很难坚持、拖延症、认为顺其自然不需要改变等都成为健康生活方式改善的“拦路虎”。

为此，全球各国政府也在进行多种尝试，包括以国家健康战略为统领，建立多部门协作的管理和服务机制，打造专兼职结合的健康教育和健康促进人才队伍，以实证为基础，明确健康教育和健康促进的优先事项，注重成功经验的激励效应和关键个人的倡导作用。研究者们也在不断开展干预探索，近些年来，这些干预探索体现出两个新特点和新趋势。

一是注重使用线上平台，发挥数字技术的作用。例如，美国疾病控制与预防中心（CDC）运用社交媒体平台推广健康信息，并通过其“健康生活”项目鼓励人们采取更健康的生活方式。英国国家健康服务体系（NHS）推广其健康 APP，如“Couch to 5K”和“NHS Weight Loss Plan”，帮助人们提高身体活动水平和管理体重。加拿大开发“Carrot Rewards”APP，奖励用户完成健康相关的活动和挑战。澳大利亚政府推广“myQuitBuddy”和“Get on Track Challenge”等 APP，帮助人们戒烟和鼓励进行体育锻炼。新加坡健康促进局运用社交媒体和手机 APP，如“Healthy 365”APP，鼓励新加坡民众参与健康活动、追踪他们的饮食和活动，以及参与健康挑战。

二是以健康社群为基础的社会支持体现出巨大的潜力。根据社会支持、社会认同和社会学习等重要理论和研究者们在不同群体中的研究探索，健康社群和社会支持有如下潜力：（1）有助于提高个体维持健康行为的动机和持续性，社群伙伴、朋友、家庭成员的鼓励和参与可以增强个体改变和维持健康行为的意愿，提供关于如何实施和维持健康生活方式的实用建议，以及在需要时提供物质支持。（2）减少个体的孤独感和社会隔离感，这对于心理健康和整体幸福感至关重要。在面对健康挑战或改变生活习惯的过程中，情感支持（如倾听、理解和鼓励）可以帮助减轻压力和焦虑。（3）可以作为健康信息和积极健康行为传播的有效渠道，通过口碑传播增加健康知识的普及，

且在一个积极支持健康生活方式的社会环境中，健康行为更容易被采纳和维持。（4）强化社区凝聚力和社会资本，这对于促进社区的整体健康和福祉至关重要。

二、全民健康水平提升是中国政府的重要目标

人口健康是人口高质量发展的重要内涵，是助力中国式现代化的重要支撑。少子化、老龄化已成为当今中国不可忽视的重要人口形势，在这一人口形势下，提升全人群健康水平不仅能够更好地适应和推动经济社会发展，同时也能减轻因健康问题带来的社会负担。2023年5月，习近平总书记主持召开二十届中央财经委员会第一次会议强调，要完善新时代人口发展战略，着力提高人口整体素质。同时，党的二十大也提出要在2035年建成健康中国，把保障人民健康放在优先发展的战略位置，完善人民健康促进政策，重视心理健康和精神卫生，深入开展健康中国行动和爱国卫生运动，倡导文明健康生活方式。

但是，随着社会的快速发展和人口结构的变化，以WHO提出的健康定义为目标，中国在推进全面健康方面遇到了一系列挑战。因此，分析全面健康的现状、发现存在的问题、探索干预措施并分析其有效性，具有重要意义。

三、2023 国民健康洞察及干预探索

（一）调研方法及调研对象情况简介

为提升国民健康素养，鼓励公众养成并践行健康生活方式，由健康中国行动推进委员会办公室作为指导单位，中国健康教育中心、中国发展研究基金会作为专业指导，环球时报、生命时报主办，中国疾病预防控制中心营养与健康所、中国营养学会作为学术支持，安利纽崔莱作为冠名支持的“健康中国 我们行动”项目于2022年发起，开展至今。借助此项目，中国发展研究基

金会在近两年的时间里，围绕健康生活方式现状洞察、干预举措、成果评价三个阶段进行追踪研究，从身体健康、心理健康、社交关系健康多维度衡量全面健康水平，并依托“我们行动啦”微信小程序为平台，通过打卡记录追踪健康生活方式情况，通过干预前后的对比探索对健康生活方式和全面健康的影响。

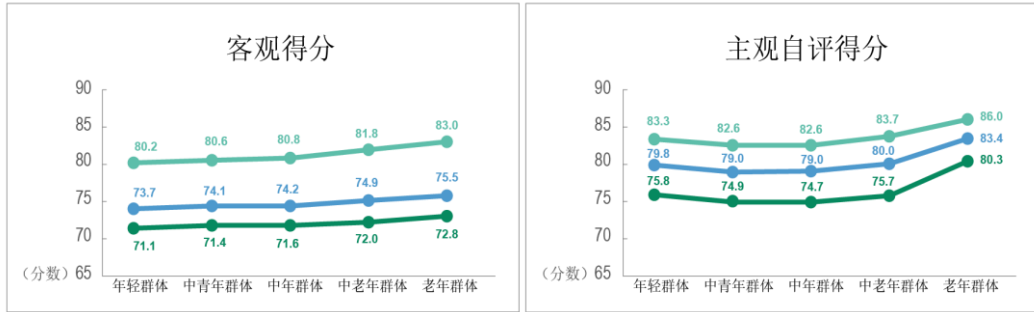
本次调查触达人群主要分为两类，一是经人转发分享后主动参与微信小程序的干预及学习的群体，二是有组织（如基于工作场所）地将该小程序作为健康促进的工具，共同组队参与。有效样本量共计 19055 人，其中男性 3633 人，占 19.1%，女性 15422 人，占 80.9%。年龄中位数为 42 岁，年龄分布主要集中在 30-39 岁、40-40 岁和 50-59 岁年龄段，分别占比为 30.7%、31.6% 和 22.9%。样本覆盖除港澳台地区以外的 31 个省级行政区域。本次调查对象文化程度较高，半数以上为本科文化程度，占 51.3%，其次依次为大专学历和高中阶段学历，分别占 21.5% 和 13.1%，初中及以下学历者仅占 6.5%。占比最高的职业是专业人士（44.8%），体制内工作（如公务员）占比 9.6%，普通工人/服务业职工/农林牧渔劳动者占比 8.8%，其他职业合计占比 36.8%^①。

（二）全面健康现状及重点健康问题洞察

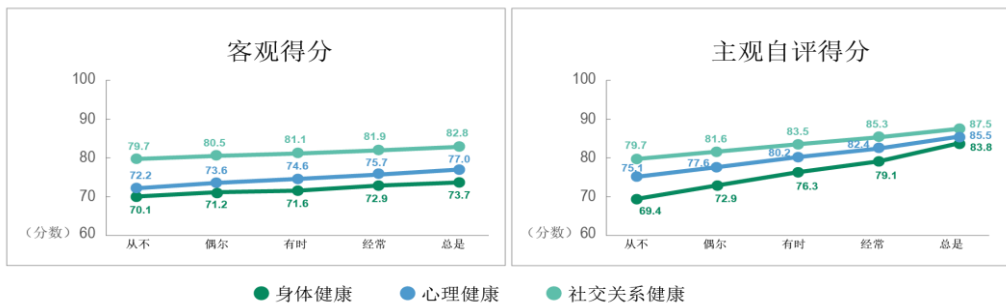
1.全面健康得分整体情况仍不理想，年轻人得分偏低，健康社群参与频率高的群体得分较高。客观评价中，身体健康、心理健康、社交关系健康平均得分分别为 71.11 分、73.68 分、80.24 分，主观自评中，得分分别为 75.84 分、79.80 分、83.28 分。30 岁以下的年轻人、在校学生和公司白领是三种健

^① 相比较全人群，调研对象女性占比较高，年龄构成偏年轻，文化程度较高，符合互联网调查的一般特点。此外，由于专业人士占比较高，且参与健康活动意识较高，推测情况可能优于全人群，但整体趋势仍具代表性。

康得分都最低的群体。健康社群参与频率和全面健康得分呈现明显的梯度关系，健康社群参与频率越高，全面健康得分越高。



● 身体健康 ● 心理健康 ● 社交关系健康
不同年龄段人群全面健康得分情况

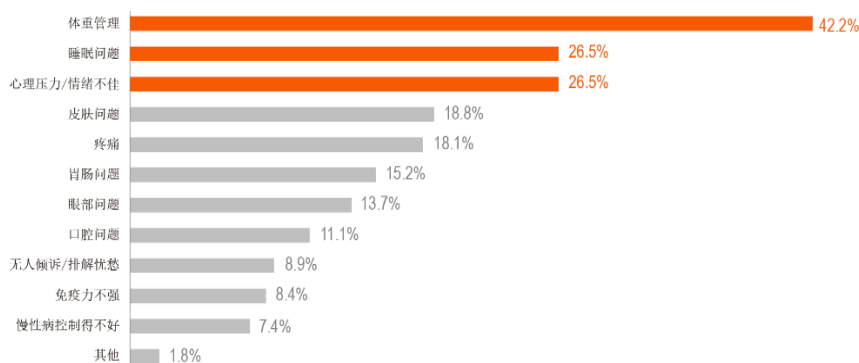


● 身体健康 ● 心理健康 ● 社交关系健康
不同健康社群活动参与频率的人群全面健康得分情况

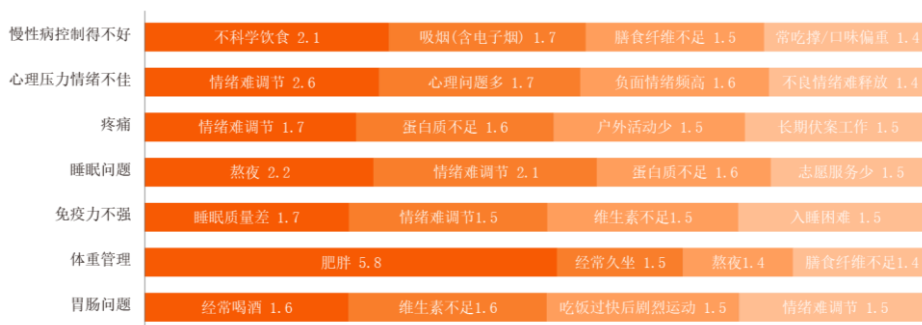
2.健康困扰多样且比例较高。受访群体普遍受各种健康问题困扰，超八成的人有各种健康困扰，平均每人有 2.0 个健康困扰。2022 年和 2023 年调查中，体重/体型管理都是最为普遍的健康困扰，2023 年占全部调查人群的 42.2%，其次依次为心理压力/情绪不佳（26.5%）、睡眠问题（26.5%）、皮肤问题（18.8%）、疼痛问题（18.1%）、胃肠问题（15.2%）。18-39 岁群体的健康困扰前五位分别是体重管理、心理压力/情绪不佳、睡眠问题、皮肤问题和胃肠问题，且存在无人倾诉这一问题的比例高于其他年轻段。从 40 岁开始，疼痛问题开始凸显，超过胃肠问题，从 50 岁起，眼部问题开始成为排名靠前的困扰，中老年群体健康困扰前五位变为体重管理、睡眠问题、疼痛、

心理压力/情绪不佳、眼部问题，老年群体中睡眠问题占比最高，体重管理、疼痛、眼部问题、胃肠问题则紧随其后。

不良生活方式与健康困扰高度关联。对各健康困扰的影响因素进行二元 logistic 回归分析，结果显示，营养膳食习惯尤其是营养素摄入与包括体重管理、皮肤问题、疼痛等多项健康困扰有关，例如，有经常吃撑/口味偏重这一不良习惯的人有体重管理困扰的概率是没有这一习惯的人的 1.786 倍。身体活动、良好的用眼习惯和口腔卫生习惯分别对体重管理、眼部问题、口腔问题产生较大影响。自我解压能力、社会情感支持对心理健康、睡眠产生较大且交织的影响。



2023人群健康困扰基本情况

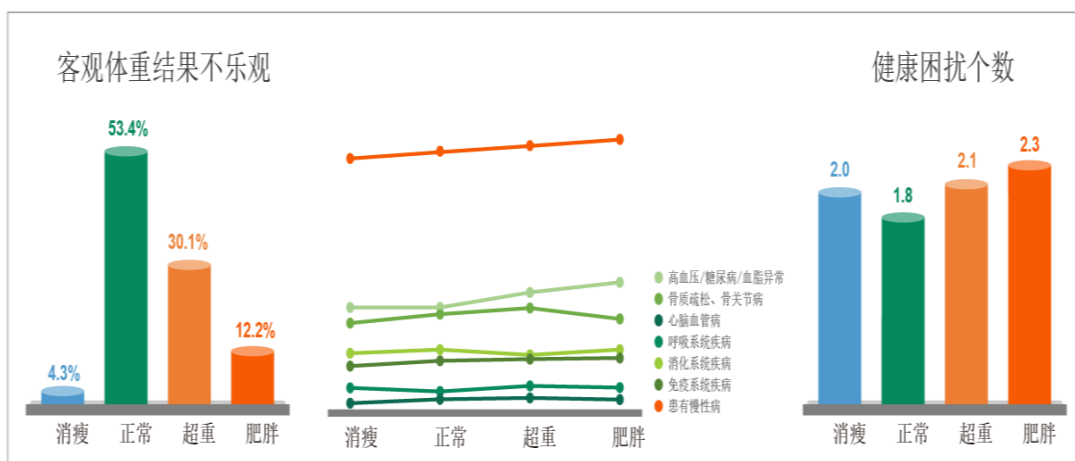


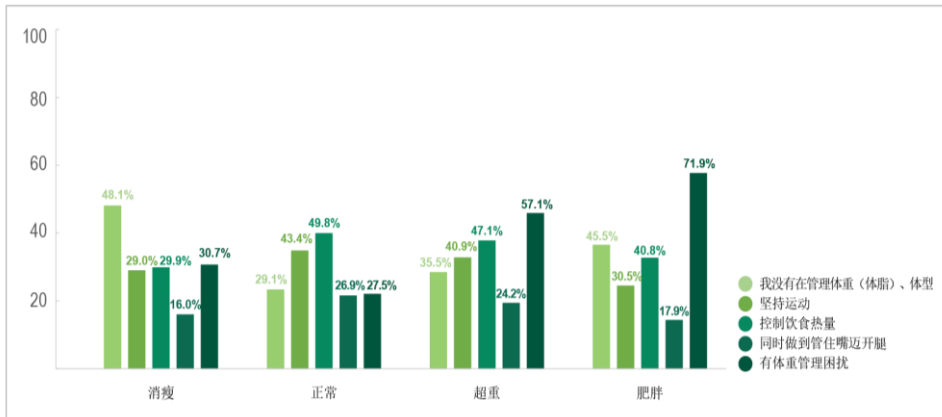
人群健康困扰及其主要的影响因素

3. 体重/体型管理困扰高居榜首，超重肥胖问题突出。42.2%的人有这一

困扰，客观上，调查对象中，体重处在正常区间的占比 53.4%，超重人群占比为 30.1%，肥胖占比为 12.2%，另有 4.3%的人处于消瘦状态。根据《中国居民营养与慢性病状况报告(2020 年)》，18 岁及以上居民超重率和肥胖率分别为 34.3%和 16.4%，超重肥胖问题严重。从调查数据看，超重肥胖的群体其慢性病患者率更高，慢性病控制不好的比例也更高，为中国慢性病防控带来巨大挑战。

超重肥胖群体健康困扰问题相对凸显，但受“不能坚持”和“拖延症”等因素影响，更难以坚持体重管理行为。高达 71.9%的肥胖群体有体重管理困扰，但从体重管理行动上，肥胖群体中有 45.5%没有在管理体重。在各项具体管理行为中，肥胖的人群的比例都更低，能做到“管住嘴，迈开腿”的人群占比仅为 17.9%，比体重正常人群低 9 个百分点。不能坚持和拖延症是有困扰但又不能采取行动改变的重要原因，分别高达 49.0%和 48.8%，采用多种方式鼓励并监督其采取体重管理行动是当前促进健康的重要手段。



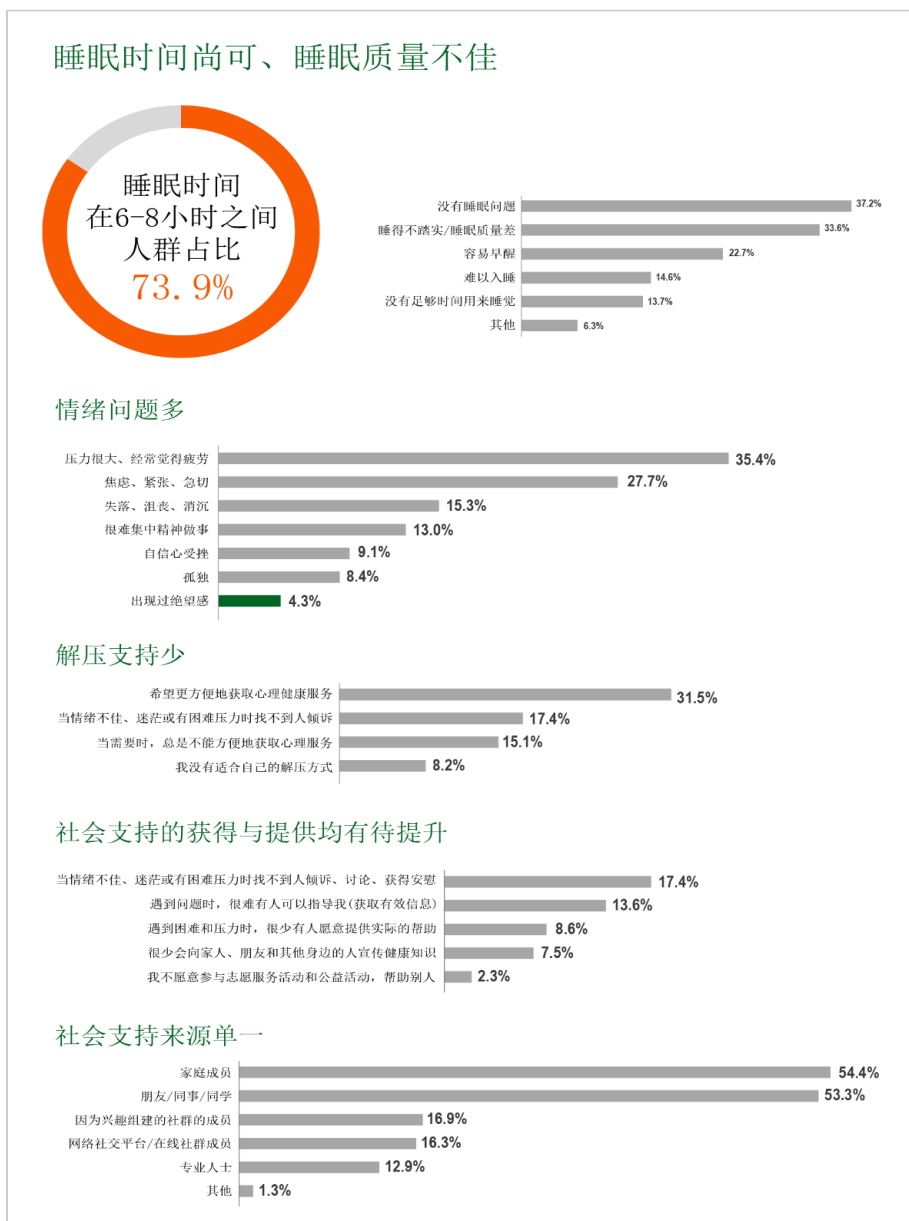


体重管理行为

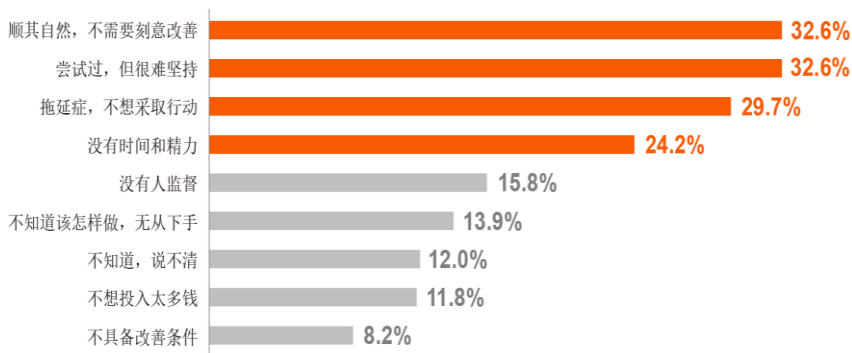
4. **心理健康问题普遍存在，年轻人心理问题更加突出。**心理压力/情绪不佳和睡眠问题是排名并列第二的健康困扰，调查对象整体呈现情绪问题多、困扰频率高、解压支持不足、睡眠质量差的特点。整体睡眠时间尚可，全部调查人群中睡眠时间在 6-8 小时之间占比 73.9%，但整体睡眠质量不佳，仅 37.2% 的人没有任何睡眠问题，问题最多的是睡得不踏实/睡眠质量差(33.6%)。压力疲劳、焦虑紧张是最普遍的心理健康问题(35.4%)，4.3% 的人出现过绝望感。多数人心理情绪问题是偶尔发生，6.3% 和 1.8% 的人经常或总是处于这一状态。年轻人的心理健康问题应高度关注。30 岁以下人群有心理健康困扰的比例高达 33.1%，压力很大、经常觉得疲劳的比例高达 39.9%，感到焦虑紧张的比例为 32.7%，均为比例最高的群体。

5. **社交关系拓展需求高，主动宣传健康知识的比例较高。**综合社会支持理论、社会学习理论，社交关系健康可具体细化为情感支持（如鼓励和同理心）、信息支持（健康知识分享）和实际支持（在有需要时提供帮助），调查对象能获得的实际支持最高（91.4%），信息支持次之（86.4%），情感支持相对最低（82.6%）。中青年群体则是社会支持最差的群体。愿意参与志愿

服务活动和公益活动、帮助他人的比例很高,超过 90%的调研对象会向家人、朋友和其他身边的人宣传健康知识。家庭成员、朋友/同事/同学是最重要的社会支持来源。老年人社会支持来源较少,但各类社群成为了老年群体社会支持的重要补充。

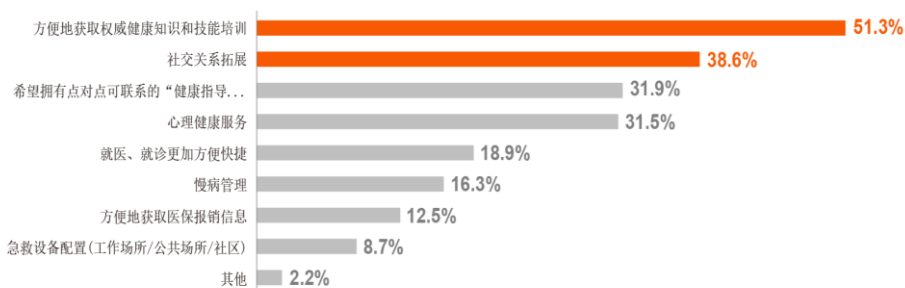


6. 健康意识薄弱和“难坚持”“拖延症”问题成为阻碍健康生活方式最重要的因素。改善健康观念，提升对健康生活方式的重要性的认知，通过健康社群等组织起到生活方式的提醒、监督、陪伴作用，是改善健康生活方式的重要途径。



阻碍健康生活方式的因素

7. 权威健康知识获取、社交关系拓展、心理健康等服务需求较高。在信息爆炸的时代，健康信息的准确性和可靠性常难以保证，提供权威可靠健康信息平台有利于人们将健康意识转化为技能和行动。社交关系拓展需求较高，需要为人们提供更高层次、更丰富的社交联系。希望增加心理健康服务的比例为 31.5%，对我国心理健康服务体系提出更高的要求。



健康服务需求情况

(三) 基于网络和健康社群的健康干预取得较好效果

针对发现的健康痛点、应知应会的健康知识和技能，以权威知识教育和社群支持为核心，提供为期 100 天的健康干预课程，核心设计如下：

1.提供社群支持。基于社会支持和同伴支持理论，鼓励用户组成健康社群的形式，开展线上线下活动，且组长和组员间都可起到互相提醒、监督、鼓励的作用。成员构成可大致分为以下三类，一是基于已有社交关系的健康社群，如家庭成员或朋友。二是有组织的健康社群，如基于共同的机构。三是基于网络的陌生人健康社群，通过“我们行动啦”小程序结成社群，背景多样，但有共同的健康目标。

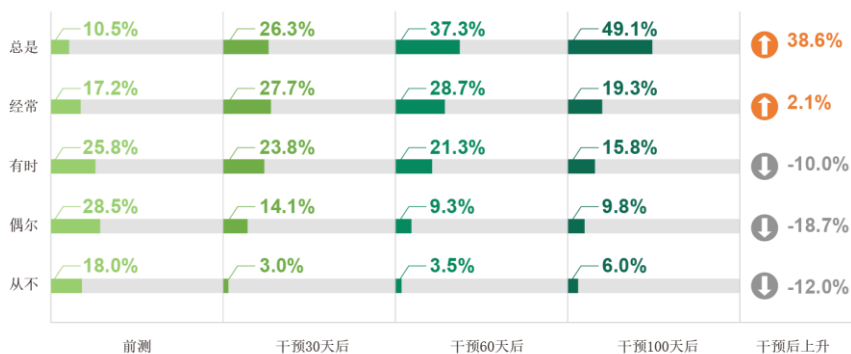
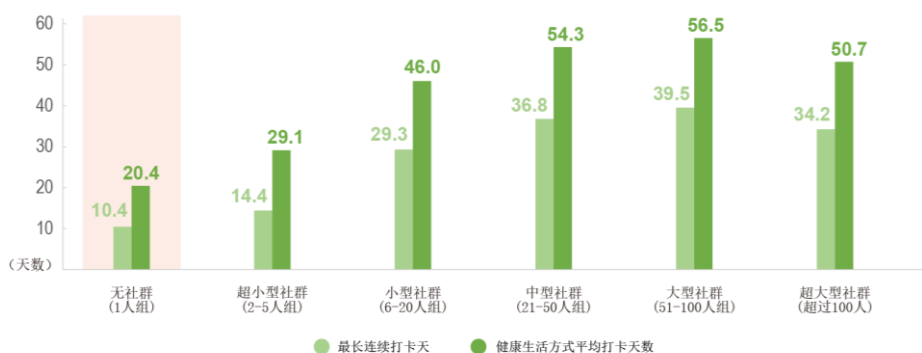
2.分层分类的权威健康知识宣教。模块式内容设计，包括全面健康多个维度，如营养膳食、运动健身、心理健康、社交关系等，同时考虑到用户多样化的学习意愿与学习安排，将百天课程设计确定为必修课程、进阶课程、高阶课程三段式安排。通过每日答题巩固知识点，通过各项测评明确自身问题。

3.提升行动力。一是健康生活方式打卡，设置目标设定和追踪功能，提供即时反馈，以期增强用户的自我认知和行为调整能力，包括饮水、膳食、体重等模块。二是阶段通关，即用户在完成各阶段课程后将随机答题，答对一定比例则可依次获得由权威机构颁发的“健康之星”、“健康标兵”、“健康达人”荣誉证书。三是积分抽奖，即完成获得相应积分。

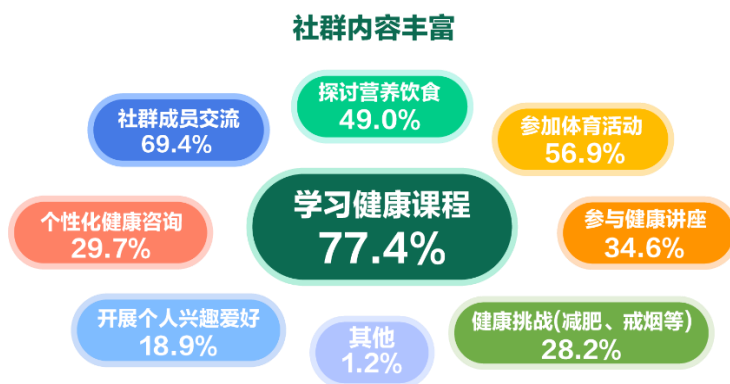
这一综合干预取得较好效果：

1.社群活动内涵丰富、粘性不断提高，带动健康生活方式践行的积极性。干预期间，总是参加健康社群活动的占比从前测时的 10.5%上升到 100 天时的 49.1%。内容多样，学习健康课程、社群成员相互探讨和提醒、共同参加体育锻炼活动是参与率最高的三项活动。组成社群有利于坚持学习打卡，任何规模

的社群打卡天数均远高于无社群的1人组，中型和大型社群打卡天数最多。



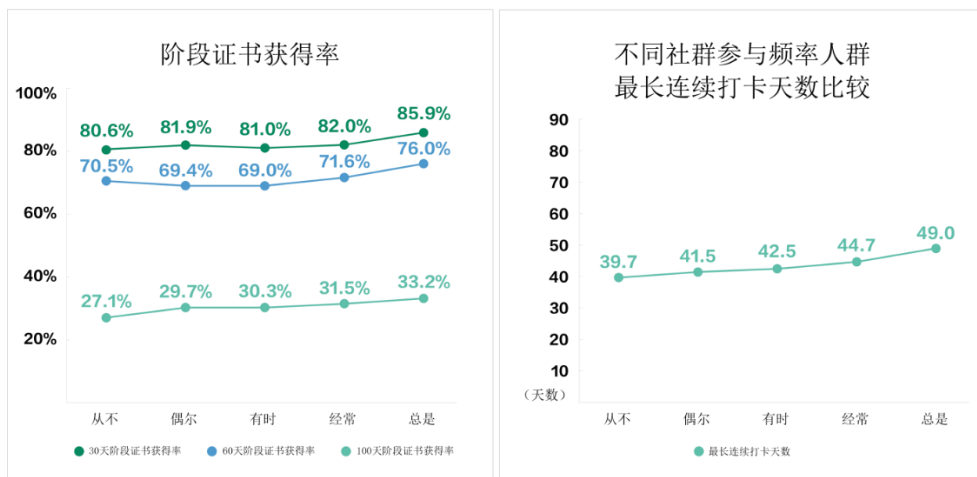
健康社群活动频率变化情况



健康社群活动内容及其参与情况

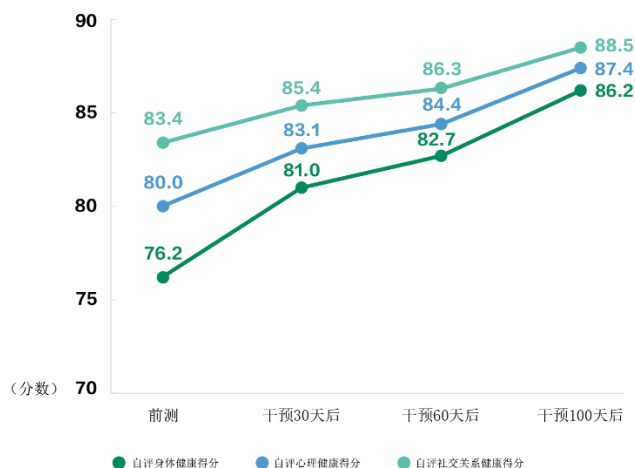
2.参与健康社群频率越高,干预打卡的连贯性越好,知识学习效果越好。

在干预期间参与健康社群频率越高,最长连续打卡天数越多,获得阶段证书(即知识问答正确率达标)的比例越高。



不同社群活动参与频率人群的打卡效果比较

3.全面健康状况明显改善,社群活动频率高的群体改善更加明显。干预后测评显示,超一半人群(56.0%)全面健康得分上涨,人群自评为非常健康和比较健康的比例自73.2%上涨为84.0%,58.0%的人群表示身体状况有效改善。随干预时间延长,得分提高增多。干预期间总是参加社群活动的人群身体健康、心理健康、社交关系健康得分分别提高12.7分、9.6分、6.9分,高于其他人群。



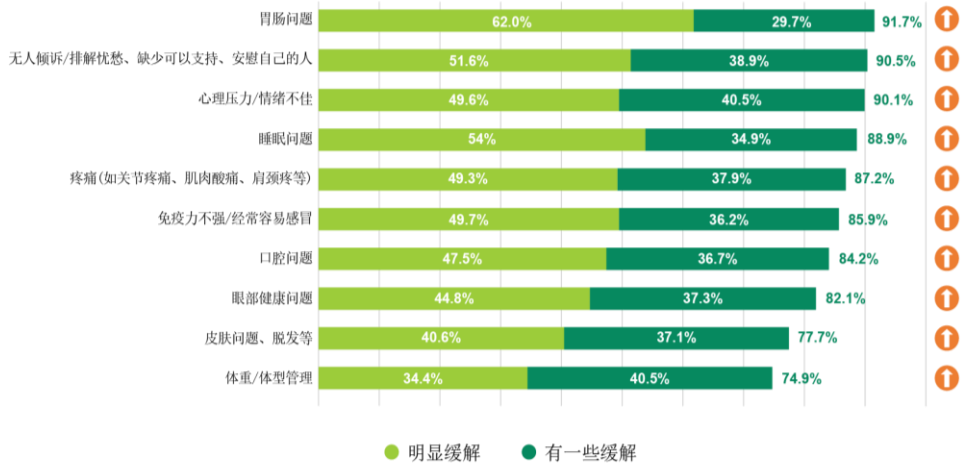
干预不同天数后各项自评健康得分变化情况

社群参与频率	自评身体健康得分		自评心理健康得分		自评社交关系健康得分	
	前测	100天	前测	100天	前测	100天
总是	76.2	88.9	80.0	89.6	83.3	90.2
经常	74.6	86.5	79.2	87.7	83.2	88.9
有时	76.6	83.6	80.2	85.1	84.0	86.4
偶尔	75.5	80.4	79.8	82.8	83.3	84.9
从不	78.0	79.1	81.1	81.6	83.9	83.9

干预前后各项自评健康得分变化情况

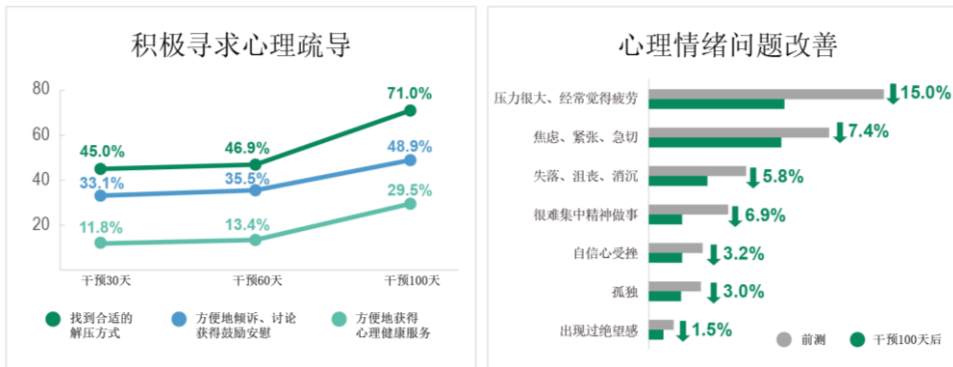
4.各项健康困扰明显表现为不同程度缓解，体重管理取得明显成效。干预 100 天后，超九成的人认为心理压力、无人倾诉、胃肠问题有所缓解，其他健康困扰也不同程度的缓解^②，体重/体型管理的缓解比例最低（74.9%），能够同时做到管住嘴迈开腿的比例从前测的 24.6%上升到 49.3%，49.0%的人表示自己体重管理取得了不同程度的成效。

② 这一比例为有所缓解的比例占原本有这一困扰的人群的比例。



健康困扰缓解情况

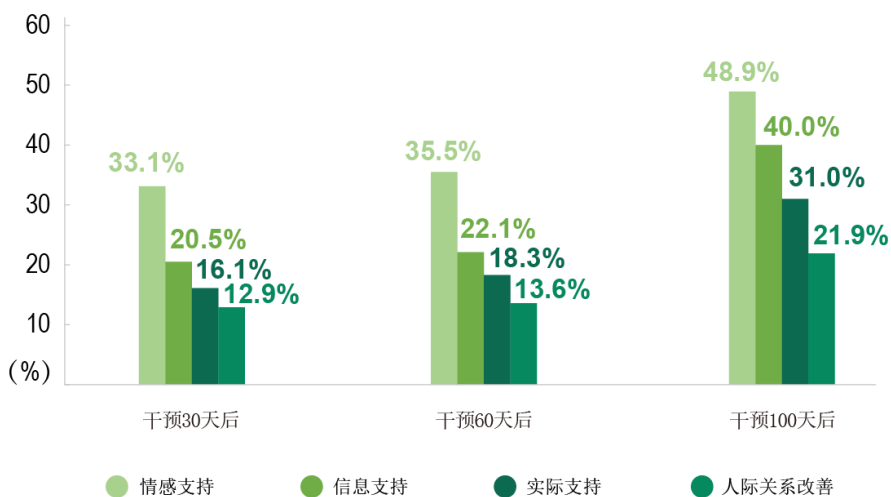
5.积极寻求心理疏导，心理健康问题明显改善。干预 100 天后，“我开始尝试或已经找到适合自己的解压方式”、能够在情绪不佳、迷茫或面临困难和压力时找到人倾诉、讨论、获得安慰、能够方便获得心理健康服务的占比分别达到 71.0%、48.9%和 29.5%，解压支持增加。各项心理和情绪问题的比例减少。没有心理困扰、很快乐的比例提高 22.5%，从不发生情绪问题的比例提高 16.1%，



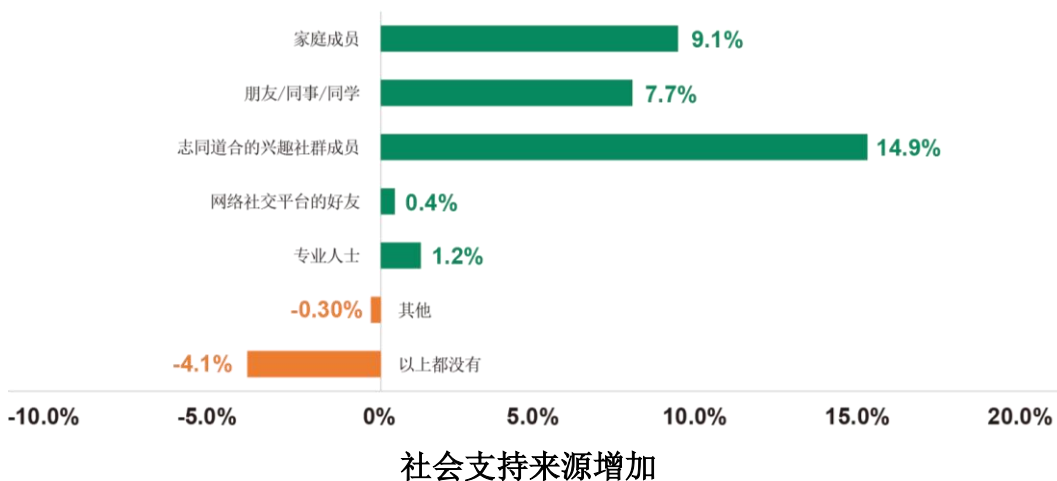
心理情绪问题及其发生频率的变化情况

7. 社会支持来源增加，志同道合的兴趣社群成员支持比例明显提高。干预 100 天后，情感支持、信息支持和实际支持有所改善的比例上升至 48.9%、

40.0%、31.0%。分别有 32.5%、33.5%、43.8%的参与者会向家人和身边的人宣传学到的健康知识，证实了健康打卡学习的外溢效应。家庭成员仍然是占比最高的社会支持来源，从前测的 56.7%增加到 65.8%，来自志同道合的兴趣社群成员的支持从 15.3%增加到 30.2%。

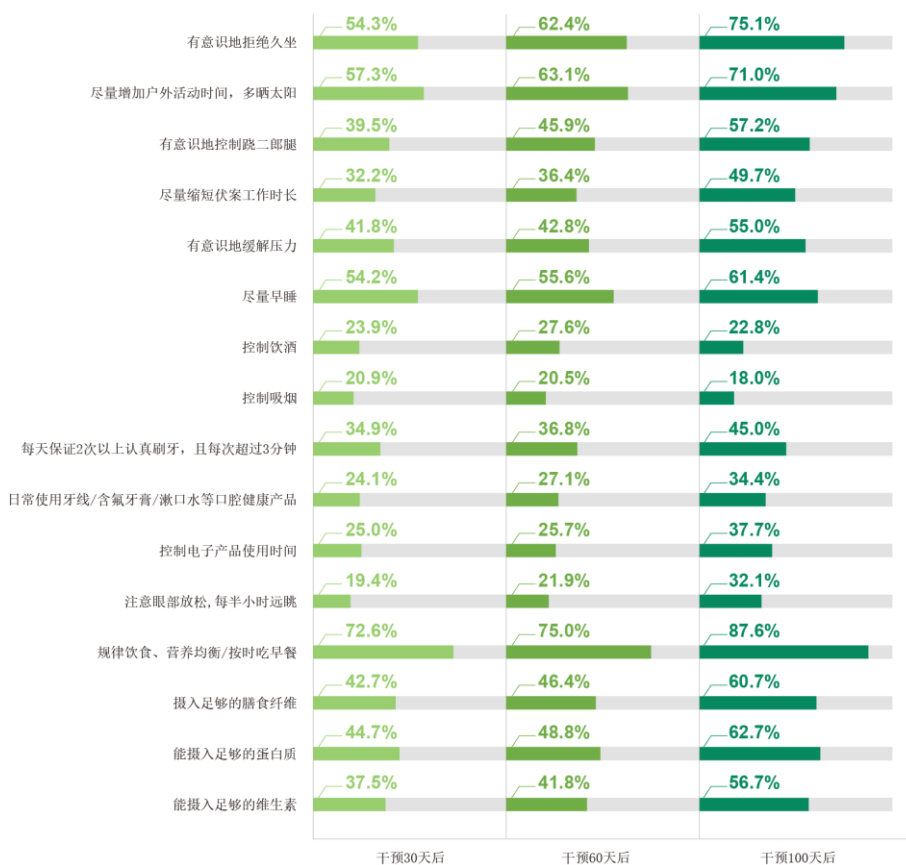


社会支持有所改善的比例不断增加



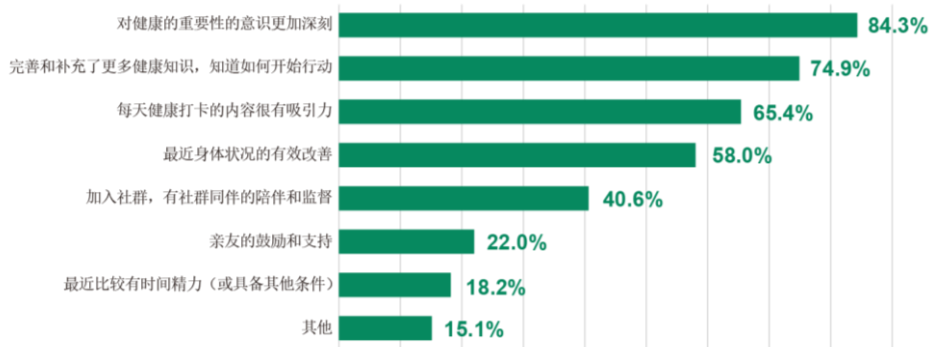
8. 健康生活方式践行日益向好，膳食等不良健康习惯有所改善。干预前后，参与者在改善不良习惯方面呈现了积极的趋势，且随着干预时间的延长，

有所改善的比例也在逐渐上升。87.6%的人在规律饮食上有所改善。100 天后，久坐不动和户外活动时间少有所改善的比例超过了 70%。口腔健康习惯和注意眼部放松的改善情况较为缓慢。



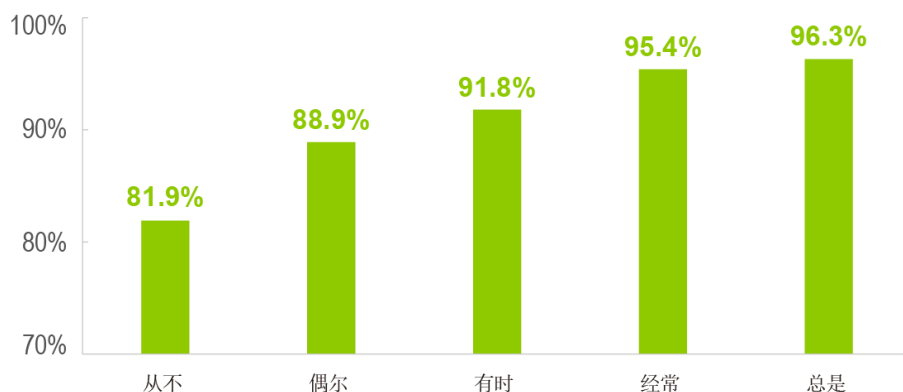
不良健康习惯的改善比例

9. 健康观念、健康知识、身体状况的改善和同伴的陪伴监督是改善健康生活方式的重要原因。与不能坚持的原因对应，受访者认为使其能够坚持健康生活方式的原因包括“对健康重要性意识的提高”、“完善和补充健康知识，并知道如何开始行动”、“加入社群，有社群同伴的陪伴和监督”等，此外，在干预中能感受到效果也是继续坚持的重要动力。

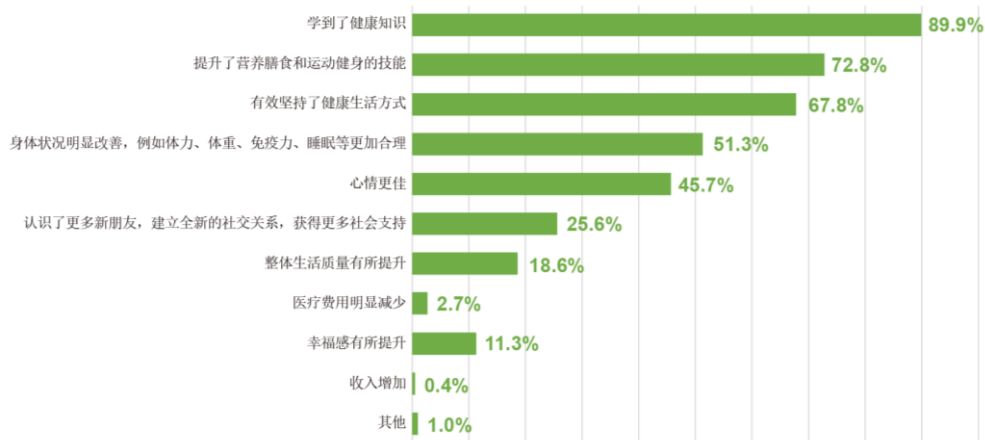


推动健康生活方式养成的主要原因占比

9.主观评价满意度高, 社群活动频率高的群体满意度更高。非常满意的 比例从干预初期的 54.9% 稳步上升到干预 100 天时的 73.3%。总是参加健康 社群活动的用户满意率最高, 非常满意的 比例高达 81.7%, 整体满意率达到 96.3%, 比从不参加的群体高 14.4 个百分点。多元化评价主观收获, 绝大多数参与者 (89.9%) 表示学到了健康知识, 72.8% 提升了营养膳食和运动健身 的技能, 有效坚持健康生活方式的比例达到了 67.8%。健康生活方式的改善 带来了身体、心理、社交关系健康的提升, 并最终使得 11.8% 的人表示整体 幸福感有所提升。



不同健康社群活动参与频次人群的满意度



干预对象的主观收获情况占比

四、启示与建议

1.中国的国情决定中国必须关口前移，预防为主，促进健康生活方式养成。慢性病负担在全球范围内日益增长，而不良行为和生活方式是导致慢性病进而导致死亡的主要原因。改变人们的不良行为和生活方式，养成健康生活方式是最有效的干预方式，也是世界卫生组织的建议和多个国家的共同战略。美国、日本、芬兰等国心脑血管疾病负担降低就与其开展的健康生活方式干预有关。对中国而言，**疾病负担沉重与卫生筹资能力有限的矛盾是健康领域的基本矛盾**。在快速工业化、城镇化，人口大规模迁移以及快速老龄化背景下，传染病压力仍然巨大，慢性病疾病负担迅速上升。慢性病治疗以及由此带来的劳动力丧失和健康生命年减少造成巨大经济损失。但是，相对日益加重的疾病负担，中国的卫生筹资能力却非常有限。在这种背景下，必须从治疗为中心转向以疾病预防和健康促进为中心，必须高度重视促进健康生活方式养成，预防疾病的发生，使慢病得到有效控制。

2.全面健康现状仍不容乐观，切实改善健康需解决“知识欠缺”和“知易行

难”两大障碍。这项全面健康洞察研究提出一些需高度关注的健康问题，尤其是超重肥胖问题、压力和心理健康问题及睡眠质量不佳等问题。虽然越来越多的人开始意识到健康生活方式的重要性，但在实际生活中，知识的欠缺和行动的困难成为了“两座大山”。以体重管理为例，意识到自身的体重问题、想要改变，但不知道如何改变，尝试过、但无法坚持的比例都很高，这甚至一定程度上又为其增加了心理压力，因此，改善健康需要综合施策，除提供权威的健康知识教育外，还应从陪伴、监督、提醒等方法入手，发挥社群作用，帮助养成健康生活方式。

3.推动健康生活方式养成可考虑采用基于线上线下的健康社群模式。这种模式通过线上平台的广泛覆盖和便捷性，以及健康社群的人际互动，形成了一个全方位、多维度的健康促进环境，可以提供丰富的健康知识资源、在线咨询服务、健康挑战活动等，激发成员的学习兴趣和参与热情。通过全面调研，比较干预前后情况，这一研究探索并证实了组建健康社群、组队系统接受知识教育等能够有效养成健康生活方式，缓解诸多健康困扰，提升健康素养，改善健康状况。中国在加紧推进健康中国建设，战略的落地需要好的抓手，期待这一研究的结果可提供些许证据支撑。

4.加强线上线下健康社群与国家健康促进相关活动的整合研究。《健康中国行动（2019—2030年）》提出健康中国建设的路径是普及健康知识、参与健康行动、提供健康服务、延长健康寿命，未来，还可进一步深化研究，将基于健康社群的干预模式与健康城市建设、健康企业创建等内容结合起来，探索不同模式下的干预效果，为提升人民健康福祉提供证据支撑。

2023 National Health Insights and Interventions

Amway Corporation

Abstract

Promoting the development of a healthy lifestyle is of paramount importance for improving people's health literacy and supporting high-quality population development. Many countries around the world are making great effort in this regard through national health strategies and promotion actions. A tracking study conducted in three stages—insights into current healthy lifestyle habits, intervention measures, and outcome evaluation—based on the "Healthy China Action" program show that the comprehensive health score is overall unsatisfactory with younger people scoring lower and groups with a higher frequency of participation in health communities scoring higher. Health concerns are diverse and present in a high proportion of people, with weight/body shape management being a top-ranked concern. Mental health problems are widespread and there is a high demand for expanding social relationships. "Difficult to maintain a healthy lifestyle" and "procrastination" have become the most important factors hindering the adoption of a healthy lifestyle. Authoritative health knowledge courses and health community support have been provided to address these health pain points, and achieved good results. Comprehensive health has significantly improved and various health concerns have been somewhat alleviated. Weight management has achieved notable results, and mental health problems have significantly improved. The sources of social support have increased, and the proportion of people receiving support from like-minded members of interest-based communities has significantly increased. There is a growing trend of practicing a healthy lifestyle, and poor health habits such as unhealthy diet have been improved. These improvements have been more pronounced in the groups with a high frequency of participation in community activities. The improvement of health awareness, health knowledge, and physical condition, as well as peer companion and supervision are important reasons for improving a healthy lifestyle. Given its national conditions, China must prioritize prevention, and promote the development of a healthy lifestyle. As the present comprehensive health of people is still not optimistic, China should effectively improve people's health by addressing the two major obstacles: lack of knowledge and difficulty in acting. Efforts should be made to adopt a model of online and offline health communities, and strengthen integrated studies on online and offline health communities and national health promotion activities.

I. Global Health Strategies and Actions

Health is a common pursuit of all humanity worldwide. Good health and well-being, which is identified as one of the 17 important goals in the United Nations 2030 Sustainable Development Goals (SDGs), aims to ensure healthy lives and promote well-being for all at all ages. According to the definition by the World Health Organization (WHO), health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. WHO regards a healthy lifestyle as one of the key factors in improving global health, and proposes that in modern society, 60% of health-related factors are individual behavior and lifestyle factors. The Global Burden of Disease Study has revealed that hypertension, diet, low physical activity, overweight and obesity have a significant impact on premature deaths from diseases. For example, in 2019, dietary risk led to 188 million disability-adjusted life years (DALYs) and 7.94 million deaths among adults aged 25 and above.

For this reason, WHO has proposed multiple global action plans, such as the Global Action Plan for Non communicable Diseases, urging countries to take action against unhealthy diets, lack of physical activities, tobacco use, alcohol abuse and other lifestyles. WHO has also rolled out a series of global strategies and guidelines related to healthy lifestyles. By focusing on the construction of "healthy cities", the organization support cities and communities to improve the health and well-being of residents through comprehensive and systematic approaches. Many countries around the world have also formulated a national health strategy, and established a multi-departmental collaborative management and service mechanism guided by the national strategy. Classic examples include the United States's Healthy People programs and National Action Plan to Improve Health Literacy, Japan's Healthy Japan 21, Canada's Health Promotion Strategy, and China's Healthy China 2030.

However, the improvement of residents' health and healthy lifestyles still faces multiple challenges in this strategic context. According to the 2022 Research Report on National Healthy Lifestyle Insights and Interventions released by the China Development Research Foundation, **"I have tried to change but it is very difficult to maintain a healthy lifestyle", "procrastination", and "I believe we should let nature take its course and that there is no need to change" have all become obstacles to improving a healthy lifestyle.** Therefore, governments around the world are making various attempts, including establishing a multi-departmental collaborative management and service mechanism guided by the national health strategy, building a team of health education and promotion talents who work full-time or part-time, clarifying the priorities of health education and promotion based on empirical evidence, and emphasizing the incentive effect of successful experience and the advocacy role of key individuals.

Researchers are also exploring interventions and these efforts have shown two new characteristics and trends in recent years.

One trend is that more focus is put on using online platforms and leveraging the role of digital technology. For instance, the Centers for Disease Control and Prevention (CDC) in the United States uses social media platforms to spread health information and encourages people to adopt healthier lifestyles through its Healthy Living Program. The UK National Health Service (NHS) is promoting health apps such as Couch to 5K and NHS Weight Loss Plan to help people improve their physical activity levels and manage their weight. Canada has developed the Carrot Rewards app to reward users for completing health-related activities and challenges. The Australian government is promoting apps like myQuitBuddy and Get on Track Challenge to help people quit smoking and encourage physical exercise. The Singapore Health Promotion Board uses social media and mobile apps including Healthy 365 to encourage participation of the public in health activities and challenges, and track their diet and activities.

The other trend is that social support from health communities demonstrates enormous potential. According to important theories such as social support, social identity, and social learning, as well as studies conducted by researchers in different groups, health communities and social support have the potential to: (1) help improve individuals' motivation to continuously maintain healthy behaviors. Encouragement and participation from community partners, friends, and family members can enhance individuals' willingness to change and maintain healthy behaviors. They can provide practical advice on how to implement and maintain a healthy lifestyle, as well as material support when needed; (2) reduce loneliness and the sense of social isolation of individuals, which is crucial for mental health and overall happiness. Emotional support, such as listening, understanding, and encouragement, helps alleviate stress and anxiety when facing health challenges or changing lifestyle habits; (3) serve as an effective channel for disseminating health information and positive healthy behaviors. By increasing the popularization of health knowledge through word-of-mouth communication, healthy behaviors are more easily adopted and maintained in a social environment that actively supports healthy lifestyles; and (4) strengthen community cohesion and social capital, which is decisive in promoting the overall health and well-being of the community.

II. Improvement in Overall Population Health as an Important Goal of the Chinese Government

Population health is an essential manifestation of high-quality population development and a key support for the Chinese path to modernization. As a low birthrate and aging population have become major demographic issues that cannot

be ignored in China today, improving the overall health of the population can not only better adapt to and promote economic and social development, but also reduce the social burden caused by health issues. In May 2023, the first meeting of the 20th Central Financial and Economic Affairs Commission, chaired by General Secretary Xi Jinping, stressed that efforts should be made to improve the population development strategy in the new era with a focus on improving the overall quality of the population. Meanwhile, the 20th National Congress of the Communist Party of China has proposed to build a Healthy China by 2035 by identifying the protection of people's health as a prioritized strategy, improving policies that promote people's health, emphasizing mental health, deepening the Healthy China and Patriotic Health actions, and advocating a civilized and healthy lifestyle. However, with the rapid social development and changes in population structure, China has encountered a range of challenges in promoting comprehensive health with WHO's definition of health as its goal. **Therefore, examining the current situation of comprehensive health, identifying existing problems, exploring intervention measures, and analyzing their effectiveness are of great significance.**

III. 2023 National Health Insights and Interventions

i. Introduction to research method and object

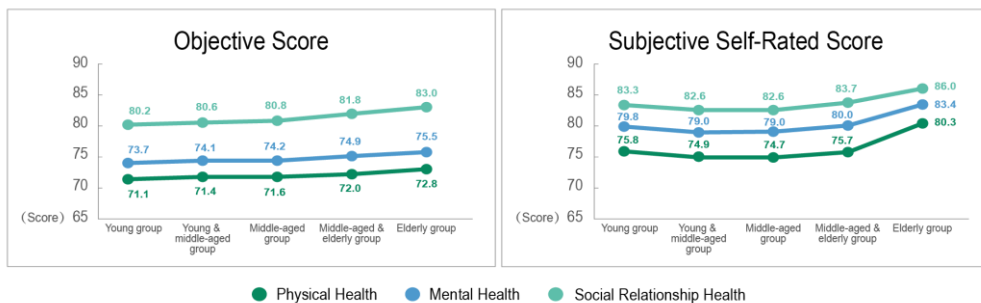
In an attempt to enhance national health literacy and encourage the development and practice of healthy lifestyles among the public, the "Healthy China Action" program was launched in 2022 and has been ongoing ever since. The program is guided by the Office of the Healthy China Initiative Promotion Committee with the China Center of Health Education and the China Development Research Foundation providing professional guidance, organized by Global Times and Life Times, supported by the Institute of Nutrition and Health of the China Center for Disease Control and Prevention and the Chinese Nutrition Society, and title sponsored by Amway Nutrilite. Through this program, the China Development Research Foundation has tracked and studied healthy lifestyles over the past two years in three stages: insights into current situation, intervention measures, and achievement evaluation, and measured comprehensive health from dimensions of physical, mental and social relationship health. Moreover, by recording and tracking information on healthy lifestyles, the Foundation has looked at the impact of interventions on healthy lifestyles and comprehensive health through before-and-after comparison.

The target audience of this survey was mainly divided into two categories. The first category was groups of learners who actively participated in the survey by using the WeChat mini-program shared and forwarded by others. The second category was groups who were organized (such as workplace-based) to participate in the survey by using the mini-program as a tool for health promotion. The effective sample size was 19,055 people, including 3,633 males, accounting for

19.1%, and 15,422 females, accounting for 80.9%. The median age was 42 years old, and the ages were mainly between 30 to 39 years, 40 to 49 years, and 50 to 59 years, accounting for 30.7%, 31.6%, and 22.9%, respectively. The sample covered 31 provincial-level administrative regions except for Hong Kong, Macao, and Taiwan. The respondents in this survey had a high level of education, with more than half holding a bachelor's degree, accounting for 51.3%, followed by a college degree and a high school degree, accounting for 21.5% and 13.1%, respectively. Only 6.5% had a junior high school or lower degree. The occupation with the highest proportion of all was professionals (44.8%), with public-sector jobs (such as civil servants) accounting for 9.6%, ordinary workers/service industry workers/agricultural, forestry, animal husbandry and fishery workers accounting for 8.8%, and other occupations accounting for a total of 36.8%^①.

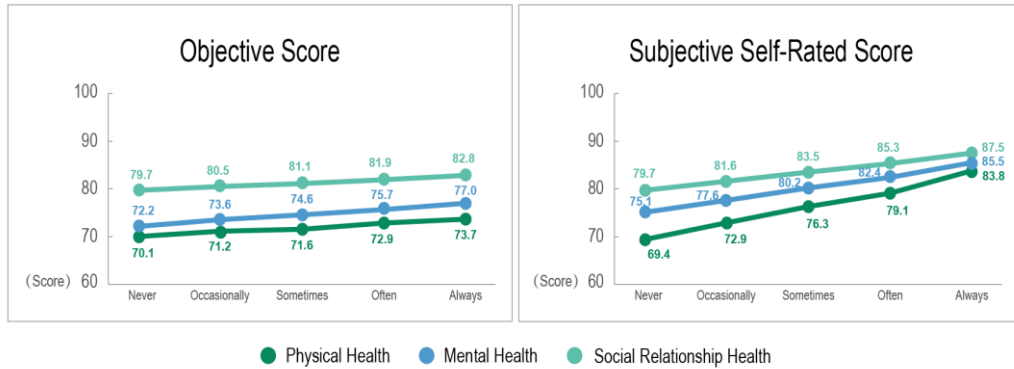
ii. Present situation of comprehensive health and insights into key health issues

1. The comprehensive health score was overall unsatisfactory with younger people scoring lower and groups with a higher frequency of participation in health communities scoring relatively higher. In objective evaluation, the average scores for physical, mental, and social relationship health were 71.11 points, 73.68 points, and 80.24 points, respectively. In subjective self-evaluation, the scores were 75.84 points, 79.80 points, and 83.28 points, respectively. Young people under 30, students in school, and white-collar workers in companies were groups with the lowest scores of the three health indicators. There was a significant gradient relationship between the frequency of participation in health communities and the comprehensive health score. The higher the frequency of participation in health communities, the higher the comprehensive health score.



Comprehensive health scores of people from different age groups

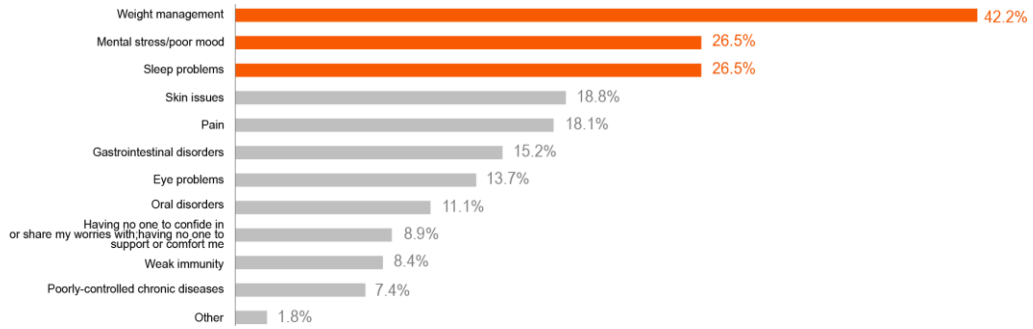
① Females accounted for a higher proportion of the respondents compared with the entire population, and were relatively young with a high education level, which was in line with the general characteristics of Internet surveys. In addition, due to the high proportion of professionals and their high awareness of participating in healthy activities, the speculated situation may be better than that of the entire population, but the overall trend is still representative.



Comprehensive health scores of groups with different frequencies of participation in health community activities

2. Health concerns are diversified and relatively high in proportion. The surveyed population generally suffered from various health problems, with over 80% of people experiencing health concerns, with an average of 2.0 health concerns per person. In the 2022 and 2023 surveys, weight/body shape management was the most common health concern, accounting for 42.2% of the total surveyed population in 2023, followed by mental stress/poor mood (26.5%), sleep problems (26.5%), skin issues (18.8%), pain (18.1%), and gastrointestinal disorders (15.2%). The top five health concerns among the 18–39 age group were weight management, mental stress/poor mood, sleep problems, skin issues, and gastrointestinal disorders, with a higher proportion of people having no one to confide in compared to other young age groups. Pain became more prominent than gastrointestinal disorders among those aged 40 and above, while eye problems became a top ranked concern among those aged 50 and above. The top five health concerns in the middle-aged and elderly groups were weight management, sleep problems, pain, mental stress/poor mood, and eye problems. The highest proportion of the elderly group had sleep problems, followed closely by weight management, pain, eye problems, and gastrointestinal disorders.

Unhealthy lifestyle is highly related to health concerns. A binary logistic regression analysis on the influencing factors of different health concerns shows that nutritional dietary habits, especially nutrient intake, are related to multiple health concerns including weight management, skin issues, and pain. For example, people who have a bad habit of frequent overeating or preferring rich taste food are 1.786 times more likely to have weight management concerns than those who do not have this habit. Physical activity, good eye habits, and oral hygiene habits have a considerable impact on weight management, eye problems, and oral health issues, respectively. The ability to relieve stress and social emotional support has a considerable and intertwined impact on mental health and sleep.



Health concerns of the population and their main influencing factors

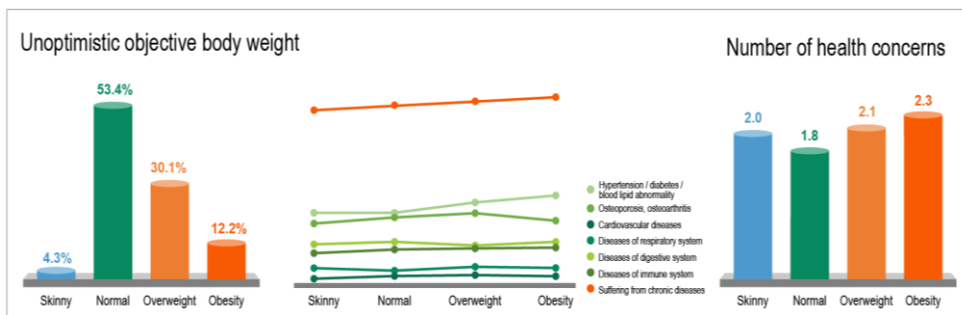
Poorly controlled chronic diseases	Scientific diets 2.1	Smoking (incl. E-cigarette) 1.7	Dietary fiber deficiency 1.5	Frequent overeating / preferring rich taste food 1.4
Mental stress/poor mood	Difficulties in emotion regulation 2.6	Many mental problems 1.7	Frequent negative emotion 1.6	Difficulties to release negative emotion 1.4
Pain	Difficulties in emotion regulation 1.7	Protein deficiency 1.6	Few outdoor activities 1.5	Long time to bend over desk working 1.5
Sleep problems	Staying up late 2.2	Difficulties in emotion regulation 2.1	Protein deficiency 1.6	Few voluntary services 1.5
Weak immunity	Poor sleep quality 1.7	Difficulties in emotion regulation 1.5	Vitamin deficiency 1.5	Difficulties in falling asleep 1.5
Weight management	Obesity 5.8	Sedentary lifestyle 1.5	Staying up late 1.4	Dietary fiber deficiency 1.4
Gastrointestinal disorders	Regular alcohol drinking 1.6	Vitamin deficiency 1.6	Intense exercise after eating too fast 1.5	Difficulties in emotion regulation 1.5
Oral disorders	Vitamin deficiency 2.0	No use of oral health products 1.9	No scientific tooth brushing 1.6	Smoking (incl. E-cigarette) 1.4
Eye problems	Little eye rest 2.1	Excessive use of eyes 1.8	Protein deficiency 1.5	Staying up late 1.4
Skin issues	Staying up late 3.7	Vitamin deficiency 1.6	Not to check nutritional label 1.6	Not drinking enough water 1.5

Health concerns of the population and their main influencing factors

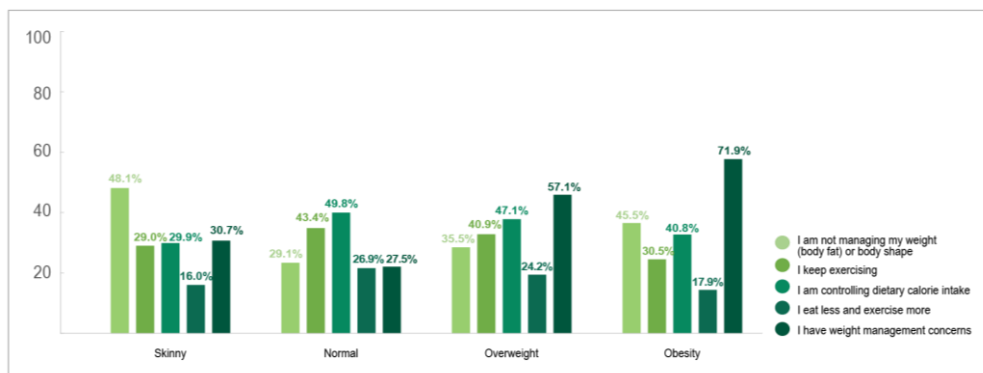
3. Weight/body shape management is a top-ranked concern, with prominent overweight and obesity problems. 42.2% of people suffered from this concern. Objectively speaking, 53.4% of the surveyed individuals had a normal weight, 30.1% were overweight, 12.2% were obese, and an additional 4.3% were in a state of emaciation. According to the Report on the Nutrition and Chronic Disease Status of Chinese Residents (2020), the overweight and obesity rates of residents aged 18 and above were 34.3% and 16.4%, respectively, indicating a serious problem of overweight and obesity. The survey data show that the overweight and obese group has a higher incidence of chronic diseases and a higher proportion of this group have poorly controlled chronic diseases, which poses a huge challenge to the prevention and control of chronic diseases in China.

The overweight and obese group has relatively prominent health problems, but it is more difficult for them to maintain weight management behaviors due to factors such as "inability to maintain a healthy lifestyle" and "procrastination". Up to 71.9% of the obese group had weight management concerns, but from the perspective of weight management behaviors, 45.5% of the obese group were not managing their weight. A lower proportion of obese

individuals engaged in each of the specific weight management behaviors, with only 17.9% being able to "eat less and exercise more", which was 9 percentage points lower than the normal weight group. Inability to maintain a healthy lifestyle and procrastination were important reasons for being troubled but unable to take action and change, accounting for up to 49.0% and 48.8% respectively. Currently, encouraging and supervising weight management behaviors through various means is a key approach to promoting health.



Health issues of groups with different body shapes and their weight management behaviors

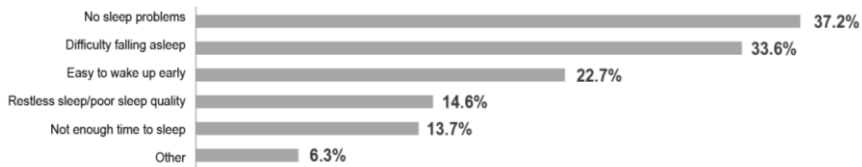
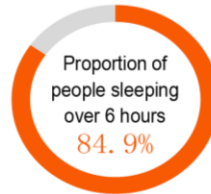


weight management behaviors

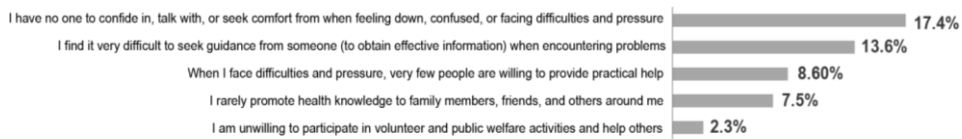
4. Mental health problems are widespread, and more prominent in young people. Mental stress/poor mood and sleep problems are both the second most common health concerns, with the survey participants characterized by multiple emotional problems, frequent troubles, insufficient support for stress relief, and poor sleep quality. The overall sleep time of survey participants was acceptable, with 73.9% of the surveyed population sleeping between 6 and 8 hours. However, the overall sleep quality was poor, with only 37.2% having no sleep problems. The most common problem was restless sleep/poor sleep quality (33.6%). Stress, fatigue, anxiety, and tension were the most common mental health problems (35.4%), with 4.3% of people experiencing feelings of despair. Most people experienced occasional mental and emotional problems, with 6.3% and 1.8% being frequently or

always in this state. **Particular attention should be given to the mental health problems of young people.** Up to 33.1% of the people under the age of 30 suffered from mental health concerns and up to 39.9% were under high pressure and often felt fatigued, representing two highest proportions of the group.

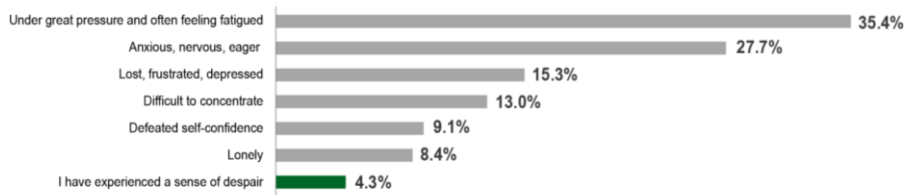
Sleep time is acceptable
Poor sleep quality



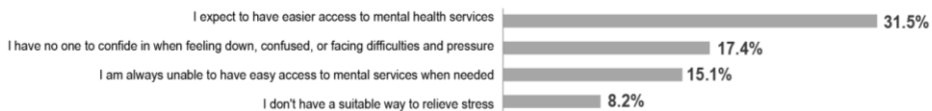
Receiving and providing social support is to be improved



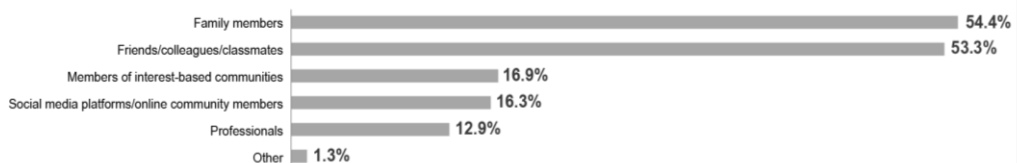
Many emotional problems



Little support for stress release

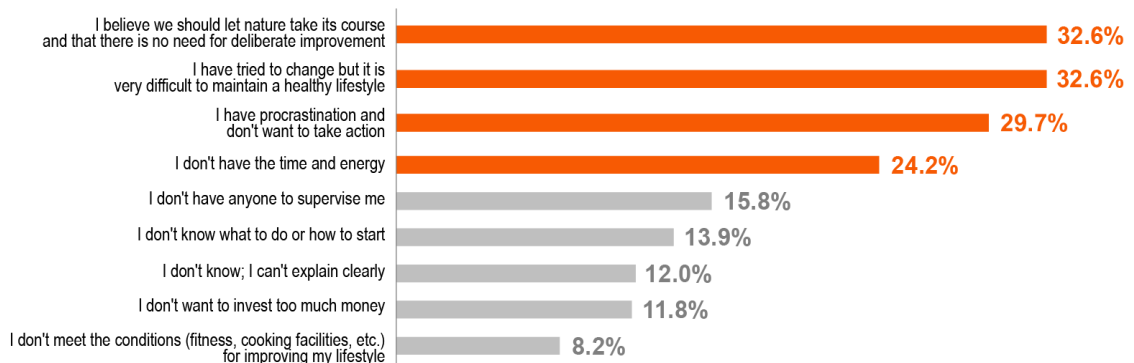


Single source of social support



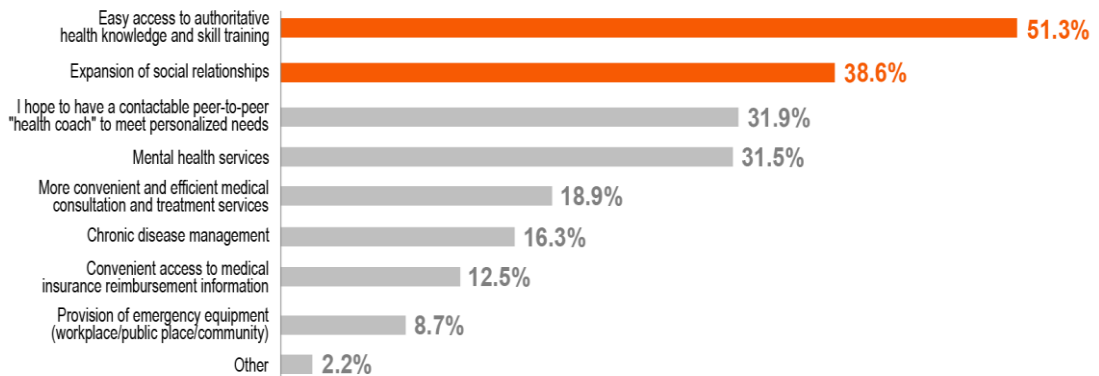
5. There is a high demand for expanding social relationships, and a high proportion of people are actively promoting health knowledge. Based on the theories of social support and social learning, social relationship health can be subdivided into emotional support (such as encouragement and empathy), information support (sharing of health knowledge), and practical support (providing assistance when needed). The highest proportion of survey participants could receive practical support (91.4%), followed by information support (86.4%), and emotional support (82.6%). The young and middle-aged group was a group that received the least social support. Family members, friends/colleagues/classmates were the most important sources of social support. There were fewer sources of social support for the elderly, but various communities became important supplemental sources of social support for this group.

6. Weak in health awareness, "difficult to maintain a healthy lifestyle" and "procrastination" have become the most important factors hindering the adoption of a healthy lifestyle. Improving health awareness, raising awareness of the importance of a healthy lifestyle, and providing reminders, supervision, and companionship through organizations such as health communities are key ways to improve a healthy lifestyle.



Factors that hinder a healthy lifestyle

7. There is a high demand for the acquisition of authoritative health knowledge, the expansion of social relationships, mental health services and other health services. As it is often difficult to ensure the accuracy and reliability of health information in the era of information explosion, providing a platform of authoritative and reliable health information is helpful in transforming health awareness into skills and actions. The demand for expanding social relationships is high, and it is necessary to provide people with deeper and richer social connections. 31.5% of respondents agreed on the provision of mental health services, putting higher demands on China's mental health service system.



Demand for health services

iii. Internet- and health community-based health

A 100-day health intervention course emphasizing authoritative knowledge education and community support was provided to address the identified health pain points, and develop required health knowledge and skills. The course was designed to:

1. Provide community support. Based on the theories of social support and peer support, users were encouraged to form health communities and conduct online and offline activities, where both team leaders and members could play a role in reminding, supervising, and encouraging each other. The members could be roughly divided into three categories: (1) health communities based on existing social relationships, such as family members or friends; (2) organized health communities, such as those based on a common organization; and (3) health communities of strangers on the internet, formed through the "Let's Take Action" mini program, who had diverse backgrounds but common health goals.

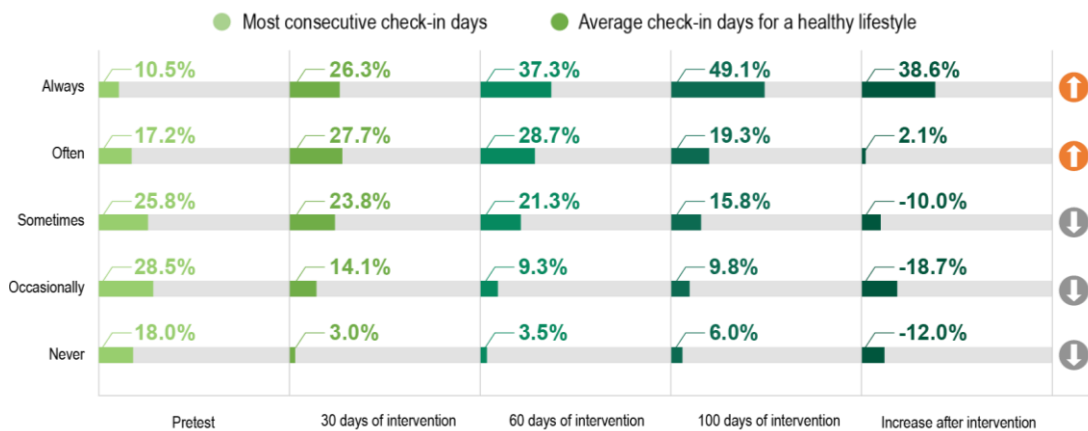
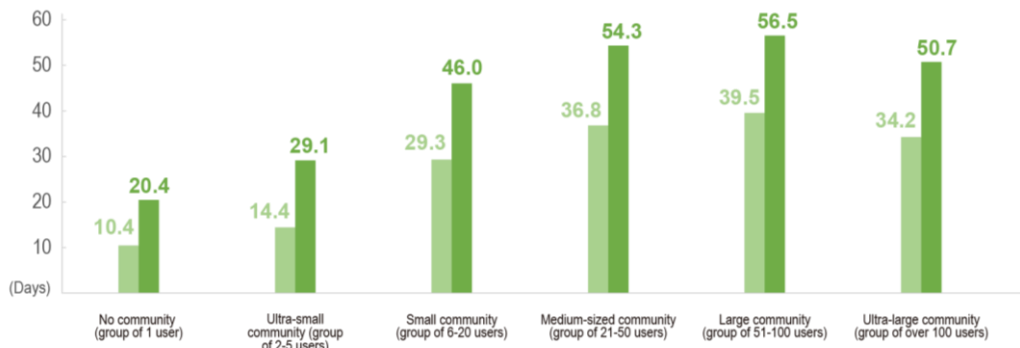
2. Provide different levels of education in authoritative health knowledge. The course was designed with modular content, including multiple dimensions of comprehensive health, such as nutritional diet, exercise and fitness, mental health, and social relationships. Meanwhile, considering the diverse learning intentions and arrangements of users, the 100-day course was available in three stages: compulsory, advanced and higher-level. Users were required to consolidate their knowledge through daily quizzes and identify any weak points through assessments.

3. Enhance actions. To achieve this goal, three measures were taken: (1) check in for a healthy lifestyle plan, where users set goals and the mini-program tracked users' behaviors and provided instant feedback to enhance users' self-awareness and behavior adjustment abilities, including water consumption, diet, and weight modules; (2) stage clearance, where users were required to answer random

questions after completing each stage of the course. If users answered a certain percentage of questions correctly, they would be successively granted the "Health Star", "Health Model", and "Health Expert" honorary certificates by authoritative institutions; and (3) point lottery, where users would earn points after completing the required task.

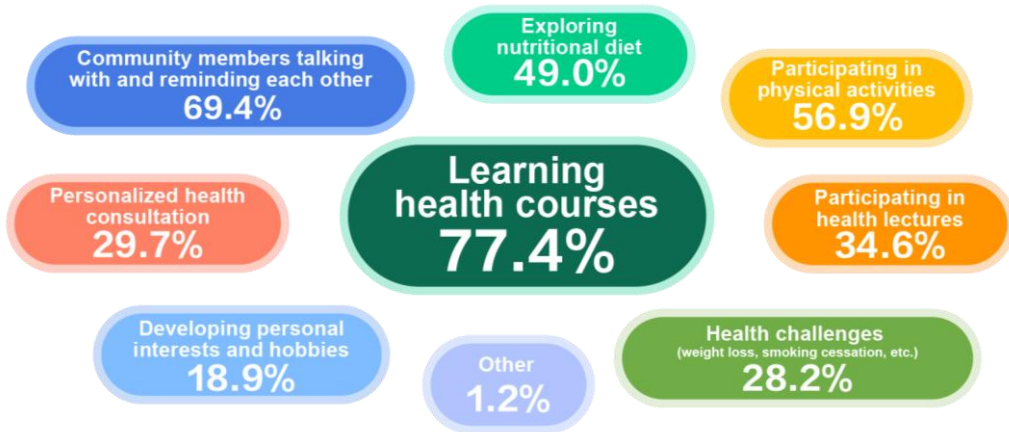
The above comprehensive interventions have achieved very positive results:

1. Rich community activities increase user stickiness and motivate them to practice a healthy lifestyle. The proportion of respondents always participating in health community activities increased from the pretest value of 10.5% to 49.1% at 100 days of the intervention period. The interventions were diverse with learning health courses, community members talking with and reminding each other, and participating in physical activities being the three activities with the highest participation rates. Forming a community was beneficial for continued learning and check-in as the number of check-in days for any size of community was much higher than that for a group of one user without a community, with medium-sized and large communities having the most check-in days.



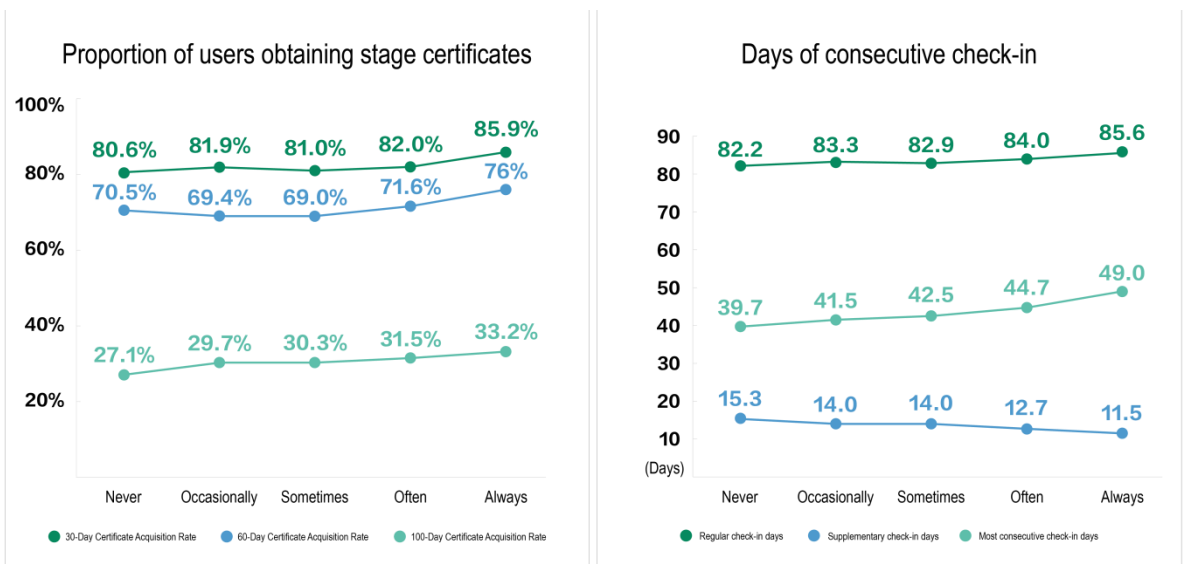
Changes in the frequency of participation in health community activities

Rich community activities



Health community activities and participation

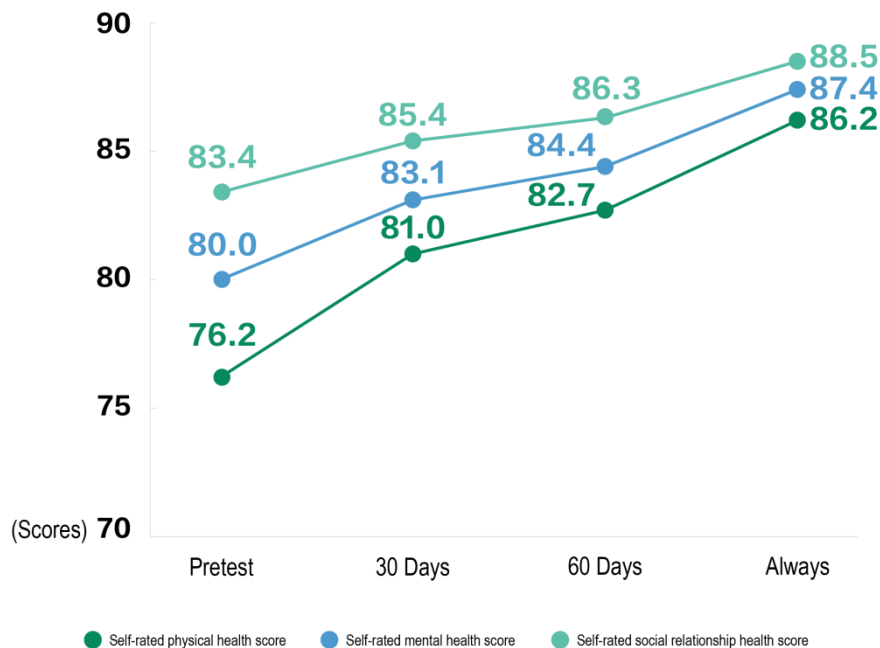
2. A higher frequency of participation in health communities results in more consistent intervention check-ins and more effective knowledge learning. The higher the frequency of participation in health communities during the intervention period, the more days of consecutive check-in, and the higher the proportion of users obtaining stage certificates (i.e., answering the required percentage of questions correctly).



Check-in comparison among groups with different frequencies of participation in community activities

3. Comprehensive health has significantly improved, especially in the group

with a high frequency of participation in community activities. The post-intervention test showed that more than half of the population (56%) had a higher comprehensive health score. The proportion of population who rated themselves as very healthy or relatively healthy increased from 73.2% to 84.0%. 58.0% of the population reported effective improvement in their physical condition. As the intervention continued, more respondents scored higher. The group who always participated in community activities during the intervention period showed an increase of 12.7 points in physical health, 9.6 points in mental health, and 6.9 points in social relationship health, respectively, which were higher than other groups.

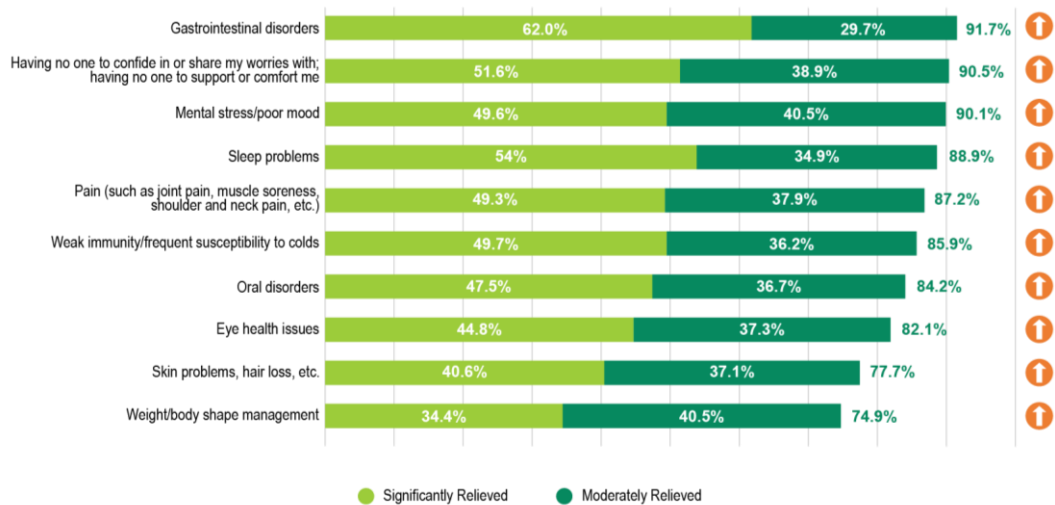


Changes in self-rated health scores after different days of intervention

Community participation frequency	Self-Rated Physical Health Score		Self-Rated Mental Health Score		Self-Rated Social Relationship Health Score	
	Pretest	100 days	Pretest	100 days	Pretest	100 days
Always	76.2	88.9	80.0	89.6	83.3	90.2
Often	74.6	86.5	79.2	87.7	83.2	88.9
Sometimes	76.6	83.6	80.2	85.1	84.0	86.4
Occasionally	75.5	80.4	79.8	82.8	83.3	84.9
Never	78.0	79.1	81.1	81.6	83.9	83.9

Changes in self-rated health scores before and after the intervention

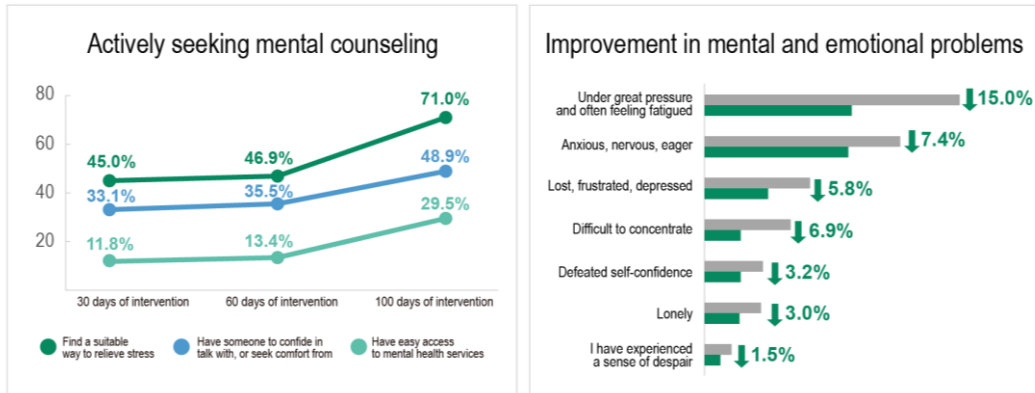
4. Various health concerns have been somewhat alleviated, and weight management has achieved noticeable results. After 100 days of intervention, over 90% of people believed that mental stress, having no one to confide in, gastrointestinal disorders had been alleviated, and that other health concerns had been somewhat alleviated^②. The lowest (74.9%) proportion of people alleviated their concern of weight/body shape management, and the proportion of people who could eat less and exercise more increased from the pretest value of 24.6% to 49.3%. 49.0% of people reported that their weight management had been somewhat effective.



Relief of health concerns

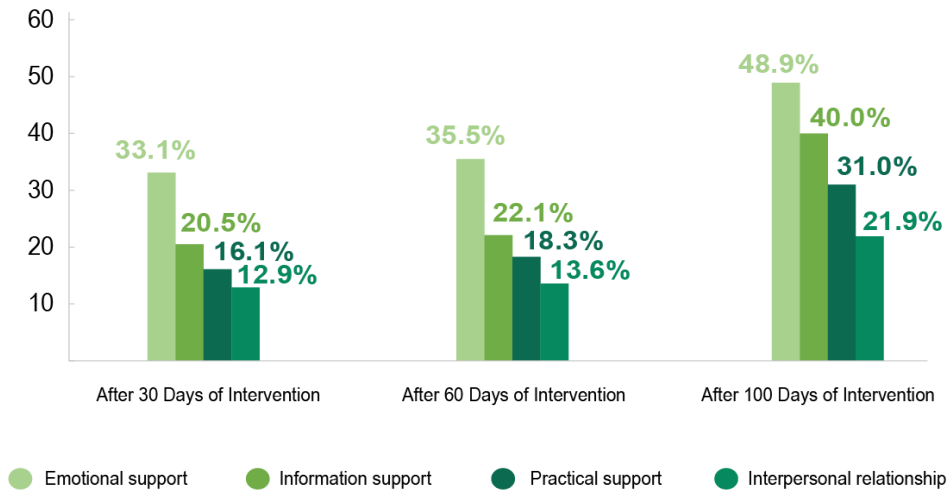
5. Actively seeking mental counseling has significantly improved mental health issues. After 100 days of intervention, the proportion of respondents who "have started trying or found a suitable way to relieve stress", "have someone to confide in, talk with, or seek comfort from when feeling down, confused, or facing difficulties and pressure", and "have easy access to mental health services" reached 71.0%, 48.9%, and 29.5%, respectively. The respondents received more support for stress relief. There was a lower proportion of respondents with mental and emotional problems. The proportion of people who had no mental concerns and were very happy was increased by 22.5%, and the proportion of people who never experienced emotional problems was increased by 16.1%.

^② This proportion represents the proportion of people who had alleviated the concern compared to those who had this concern.

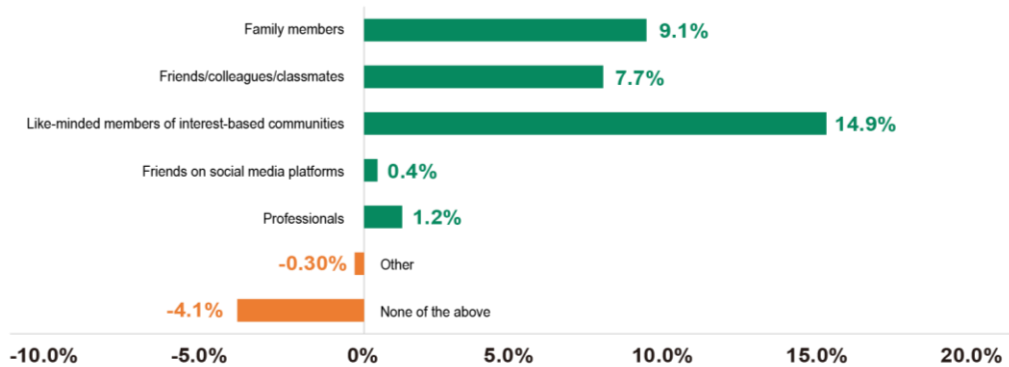


Mental and emotional problems and changes in frequency

6. The sources of social support have increased, and the proportion of people receiving support from like-minded members of interest-based communities has significantly increased. After 100 days of intervention, the proportion of people receiving improved emotional support, information support, and practical support increased to 48.9%, 40.0%, and 31.0%, respectively. 32.5%, 33.5%, and 43.8% of participants would promote the health knowledge they have learned to their families and those around them, confirming the spillover effect of health check-in and learning. Family members remained the greatest source of social support as support from family members increased from the pretest value of 56.7% to 65.8%, while support from like-minded members of interest-based communities increased from 15.3% to 30.2%.

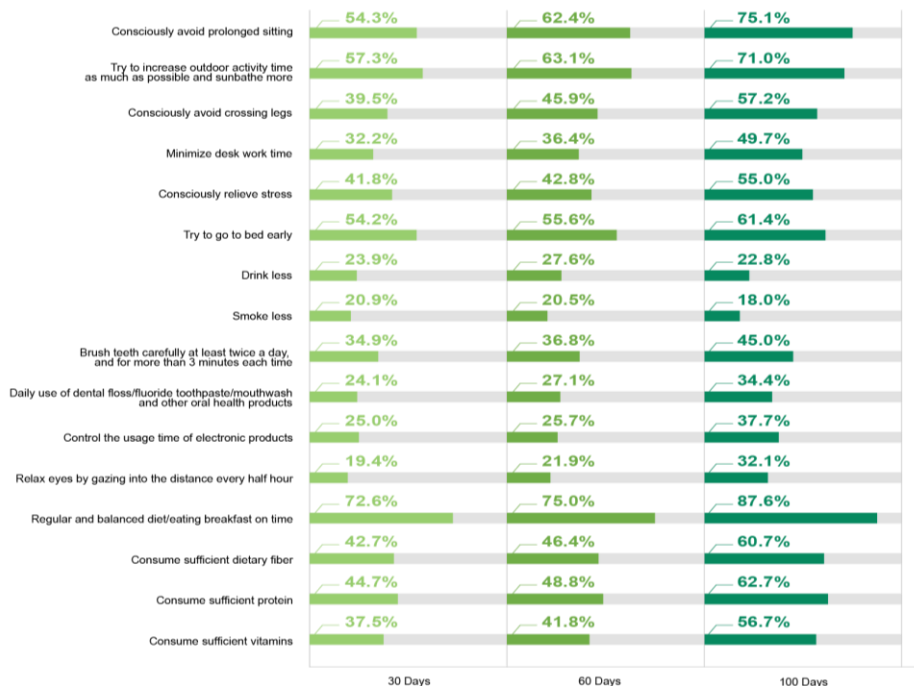


Increasing proportion of people with improved social support



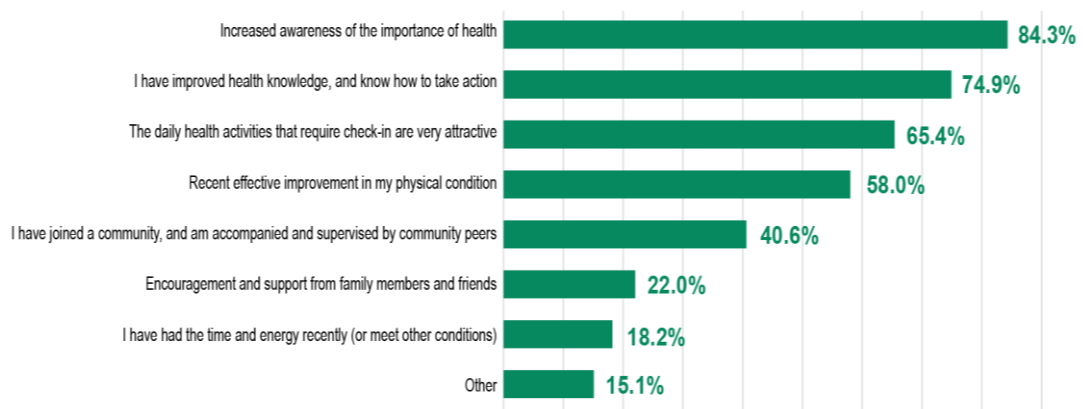
Increased sources of social support

7. There is a growing trend of practicing a healthy lifestyle, and poor health habits such as unhealthy diet have been improved. The results before and after the intervention revealed a positive trend in the improvement of bad habits among the participants, and the proportion of participants with improvement in bad habits gradually increased as the intervention continued. 87.6% of people showed improvement in regular diet. After 100 days, more than 70% of people showed improvement in sedentary behavior and less time for outdoor activity. There was a slow improvement in oral health habits and eye relaxation.



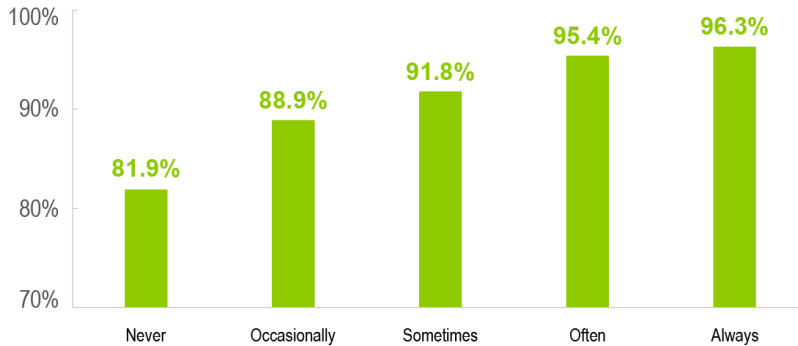
Proportion of people showing improvement in poor health habits

8. The improvement of health awareness, health knowledge, and physical condition, as well as peer companion and supervision are important reasons for improving a healthy lifestyle. Contrary to reasons for inability to maintain a healthy lifestyle, respondents believed that the reasons for being able to maintain a healthy lifestyle included "increased awareness of the importance of health", "I have improved health knowledge, and know how to take action", "I have joined a community, and am accompanied and supervised by community peers". In addition, being able to feel the effects of the intervention was also a major driving force for maintaining a healthy lifestyle.

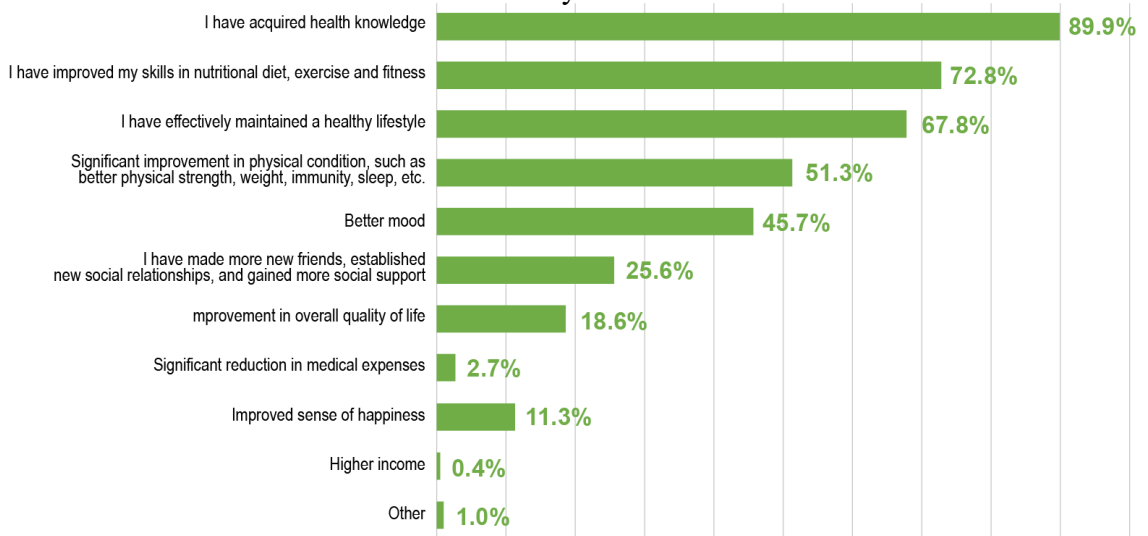


Main reasons for the development of a healthy lifestyle

9. Subjective evaluation shows higher satisfaction, and groups with a higher frequency of participation in community activities are more satisfied. The proportion of highly satisfied respondents steadily increased from 54.9% at an early stage of intervention to 73.3% at 100 days of intervention. The users who always participated in health community activities had the highest satisfaction rate, with up to 81.7% being highly satisfied and an overall satisfaction rate of 96.3%, which was 14.4 percentage points higher than the group who never participated in such activities. According to diversified subjective evaluations, the majority of participants (89.9%) reported acquisition of health knowledge, 72.8% improved their skills in nutritional diet, exercise and fitness, and 67.8% effectively maintained a healthy lifestyle. An improved healthy lifestyle contributes to an improvement in physical, mental, and social relationship health, ultimately resulting in 11.8% of people reporting an overall increase in happiness.



Satisfaction of groups with different frequencies of participation in health community activities



Subjective gains from the intervention

IV. Inspiration and Suggestions

1. Given its national conditions, China must prioritize prevention, and promote the development of a healthy lifestyle. The burden of chronic diseases is increasing globally, and bad behavior and lifestyle are the primary causes of chronic diseases leading to death. Changing people's bad behavior and lifestyle and cultivating a healthy lifestyle are the most effective interventions that are

recommended by WHO and serve as a common strategy of multiple countries. The reduction in the burden of cardiovascular and cerebrovascular diseases in countries such as the United States, Japan, and Finland is related to the healthy lifestyle interventions they have implemented. For China, **the contradiction between heavy disease burden and limited healthcare financing capacity is the fundamental contradiction in the health sector.** Infectious diseases put an enormous pressure on the healthcare system, and the burden of chronic diseases grows rapidly in the context of fast industrialization, urbanization, large-scale population migration, and rapid aging. Although the treatment of chronic diseases and the resulting loss of labor and decrease in healthy life years have caused significant economic losses, China's healthcare financing capacity is quite limited compared to the increasing burden of diseases. In this context, it is necessary to shift focus from treatment to disease prevention and health promotion and attach great importance to promoting the development of a healthy lifestyle, preventing the occurrence of diseases, and effectively controlling chronic diseases.

2. The present comprehensive health of people is still not optimistic, and effectively improving health requires addressing the two major obstacles of lack of knowledge and difficulty in acting. This comprehensive health insights study raises some health issues that require great attention, especially overweight and obesity, stress, mental health issues, and poor sleep quality as well. While a growing number of people are beginning to recognize the importance of a healthy lifestyle, the lack of knowledge and difficulty in acting have become two major obstacles in practical life. Taking weight management as an example, there was a quite high proportion of people who were aware of their weight issues and wanted to change, but didn't know how, and who had tried to change but was unable to maintain a healthy lifestyle. This even increased their mental pressure in a sense. Therefore, improving health requires integrated measures. In addition to providing education in authoritative health knowledge, we should allow communities to play a role in helping people cultivate a healthy lifestyle through a variety of means such as companionship, supervision, and reminders.

3. The development of a healthy lifestyle can be promoted by adopting a model of online and offline health communities. This model creates a comprehensive and multi-dimensional health promotion environment due to the wide coverage and high accessibility of online platforms, as well as the interpersonal interaction within health communities. It can provide extensive resources of health knowledge, online consultation services, health challenge activities, stimulating members to learn and participate. Through comprehensive research and comparison of the results before and after the intervention, this study has confirmed that building a health community and forming a team to receive knowledge education systematically can effectively cultivate a healthy lifestyle, alleviate many health concerns, enhance health literacy, and improve health. It is

expected that the results of this study can provide some evidence to support China's accelerated efforts in the construction of a healthy China, and the implementation of related strategies.

4. Efforts should be made to strengthen integrated studies on online and offline health communities and national health promotion activities. As set out in the Healthy China Action (2019–2030), popularizing health knowledge, participating in health actions, providing health services, and extending healthy lifespan are the approaches to building a healthy China. Looking forward, further research can be conducted to examine the effects of interventions under different models by combining the health community-based intervention model with the construction of healthy cities and companies, thus providing evidence-based support for improving people's health and well-being.