

High-Rise Health Issues

Packed with skyscrapers, Hong Kong is notorious for being a high-density city, with some districts home to over 400,000 people per square kilometre. These extremely cramped living conditions have been identified as a major cause of illness among residents. Aggravating the potential health hazards of dense urban areas is poor management in many of the city's ageing apartment blocks. Buildings, it seems, are like people - without the proper care and attention, they become unhealthy. Property owners and facility management companies need to adopt measures to ensure healthy buildings that in turn, protect the well-being of their residents.

Wilson Lau



Aging apartment blocks stand side by side across parts of Kowloon
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According to a University of Hong Kong (HKU) report in 2013, “The cramped living conditions [in many local residential buildings] make it easy to spread infectious diseases in public areas, such as entrance lobbies and lifts.” The paper - Performance of Property Management Companies in High-rise Flats: A Pilot Study - focused on 41 private blocks of flats from Fortress Hill to Chai

Wan and was co-authored by Dr Ervi Liusman, who currently lectures at the Chinese University of Hong Kong (CUHK).

Since the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2003, the performance of many property and facility management (PFM) companies has been under the spotlight, prompting them to step up their game. “These companies now have staff constantly clean the public areas, lifts, and lift buttons. More frequent cleaning is carried out when the government issues warnings against possible outbreaks of infectious diseases,” says Dr Liusman. Indoor air pollution is another problem. “When it comes to air quality in public areas, PFM companies can impose bans on smoking in public areas and forbid incense burning outside units and stairwells. But this requires the cooperation of individual residents.” Ventilation in old buildings is often inadequate and when people smoke or burn incense in common areas, such as stairways and corridors, the health of residents may be affected. “Poor ventilation in buildings is among the major reasons that many Hong Kong people suffer from allergies,” she adds.

Restaurants on the lower floors of mixed-use buildings (where upper floors are residential) often install industrial exhaust systems that produce large amounts of greasy emissions that rise to affect the inhabitants of the upper-floors. “Because the building design cannot be altered, one possible way to mitigate the effect of the exhaust gas is to install a filtering system,” says Dr Liusman.

Other potential health hazards in buildings are more physical in nature. Illegal structures, such as balconies and additional floors, exert pressure the original structures were not built to withstand. “Some people knock down the structural walls in their units. It may reduce necessary support for the structure and have an impact on the building’s stability,” says Wong Kit-loong, CEO and Executive Director of the Hong Kong Housing Society. There have been incidents in which illegal works have fallen off or buildings have collapsed because of unauthorised alterations.

All buildings in Hong Kong are built by registered construction companies in compliance with government standards and regulations. Once completed, residents can only move in after occupation permits have been issued by the



Buildings Department following a thorough inspection. Ideally, they're built to be structurally sound and able to ensure the safety for their inhabitants for at least 50 years. Currently, there is intense debate within the housing sector about the safety of buildings after that time. "In our experience, the key is adequate and sufficient repair and maintenance," Wong notes. "One of the most common safety issues in buildings is spalling concrete. This affects the structural safety of buildings."

As buildings age, the facilities and fixtures in public areas undergo wear and tear. Regular inspections to identify problems followed by repairs and refurbishment are necessary steps to ensure their structural integrity and the safety of the inhabitants. In terms of healthy building practices and the application of the Buildings Ordinance, the rules are the same for public and private residential buildings, says Wong. "They are all required to comply. For private developments, how well they do depends on the building management companies and the owners' corporations and their approach to repairs and maintenance. The maintenance of public housing estates is handled by organisations like the Housing Society. For us, residents' safety is first and foremost. But private PFM companies may have other priorities. Sometimes public space may be sacrificed or the quality of management is compromised owing to the high cost. Nevertheless, I believe strict compliance with regulations and safety standards should be the priority of qualified PFM companies and responsible owners' corporations."

According to Dr Liusman, the HKU study has shown that younger buildings are generally maintained and managed better than older buildings. "In some old buildings that had changed PFM companies shortly before our visits, we observed cracks in ceilings and concrete spalling. The PFM companies soon carried out repairs and maintenance. We also saw that sometimes the quality delivered by the same PFM company varied from one building to another. But it was because the older buildings [with poorer quality of management] had just been taken [over] by the PFM company."

To address the other problems in ageing buildings, including broken and dislodged windows and spalling concrete, the government has implemented the Mandatory Window Inspection Scheme (MWIS) and Mandatory Building Inspection Scheme (MBIS). "Residential buildings

over 10 years should [participate in] the MWIS. However, [this] depends on the owners because they need to pay. The government also requires buildings over 30 years to [participate in the] MBIS," adds Dr Liusman. "PFM companies are supposed to organise structure[al] survey[s] for buildings. But we did not see many buildings that had conducted the structur[al] survey during our site visits."

"For buildings over 40 years, the long-term solution is large-scale thorough renovation. If the PFM companies can achieve this, their performance improve[s]. But the final decision rests with the building owner corporations. The PFM companies can only recommend the renovation." Dr Liusman says the HKU study concluded that efforts by PFM companies have had an impact on building conditions.

In public housing estates, organisations such as the Hong Kong Housing Society ensure that the facilities for ageing buildings meet the current standards in areas such as water and electricity supply, space, lighting and ventilation. Modernisation and retrofitting are key, Wong explains. "For instance, some public housing blocks do not have lifts stopping [on] every floor. This can be inconvenient for elderly inhabitants. We have retrofitted lifts so that they serve every floor. We also enhance other areas, including strengthening the power supply and the security systems."

In an attempt to look after ageing residents of public estates, the Housing Society has added some facilities for them. For instance, elderly and healthcare centres are located within the estates. "This not only helps address their health issues, it also provides preventive measures," Wong notes.

Describing the Housing Society as a 'housing laboratory', Wong says it has developed projects catering to the needs of the elderly with varying levels of financial means. Among them is the new Tanner Hill retirement housing project, which mainly targets senior citizens who want higher living standards. Apart from fixtures and furnishings for the elderly, the development features a traditional Chinese medicine clinic established in collaboration with the Hong Kong Sanatorium and Hospital and a clubhouse with a swimming pool, recreational rooms and a business centre.

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多層住宅樓宇的健康問題

香港高樓大廈林立，城市密度偏高，個別地區的居住密度更高逾每平方公里400,000人，一直為人詬病。居住環境狹窄不堪，是居民患病的主因。市區人口稠密，不少舊樓管理不善，令樓宇健康更加岌岌可危。建築物就好比人體，如果照顧不周，健康就會大打折扣。業主和設施管理公司應採取措施，致力確保樓宇健康，從而保障居民安居樂業。

Wilson Lau

香港大學 2013 年的研究報告指出：「[本港不少住宅樓宇]居住環境狹窄，導致傳染病容易在大堂入口、升降機等公共地方傳播。」研究報告題為《多層住宅樓宇的物業管理公司表現評估：先導研究》(Performance of Property Management Companies in High-rise Flats: A Pilot Study)，由香港中文大學講師劉海慧博士等合著，研究對象為炮台山至柴灣一帶的 41 幢私人樓宇。

自 2003 年爆發嚴重急性呼吸系統綜合症 (SARS) 以來，不少物業及設施管理公司的表現一直備受關注，促使了這些公司提升管理質素。劉博士指：「現在，這些公司會安排員工定時清潔公共地方、升降機及升降機按鈕。每當政府發出有可能爆發傳染病的警告，員工就會更勤加清潔。」另一個問題是室內空氣污染。「在公共地方空氣質素的問題上，管理公司可將公共地方定為禁煙區，並禁止在單位外及樓梯間燃燒香燭，但這些措施都有賴居民合作。」舊樓往往缺乏足夠的通風設備，一旦有人在樓梯及走廊等公共地方吸煙或燒香，便可能影響居民健康。「樓宇通風不足，是導致不少港人過敏的元兇之一。」

混合用途樓宇的上層用作住宅，而位於低層的餐廳一般設有工業排氣系統，運作時會釋放大量油煙，影響樓上居民。劉博士指：「由於樓宇設計不能更改，其中一個可行辦法是安裝過濾系統，以減輕廢氣影響。」

樓宇內還潛伏著其他較實在的健康危機。違法僭建的露台及樓層等構築物，會造成超出樓宇本身結構所能承受的壓力。香港房屋協會 (房協) 行政總裁兼執行董事黃傑龍指：「一些住戶拆除了單位內的結構牆，可能導致樓宇結構失去必要的支撐，影響樓宇穩固度。」過往，某些違規建築或樓宇因未經授權更改結構而倒塌的意外屢次發生。

目前，香港所有樓宇都由註冊建築公司按照政府標準及規定建成。竣工後，樓宇須經屋宇署仔細檢驗並發出佔用許可證方可入伙。如無意外，樓宇結構建得穩固，起碼能安全住上 50 年。現時，房屋業界正就樓齡逾 50 年的樓宇的安全問題爭論不休。黃傑龍提到：「根據業界經驗，關鍵在於妥善的維修和保養。其中一項常見的樓宇安全問題是混凝土剝落，這會影響樓宇結構安全。」

隨著樓齡增加，公共設施及設備亦會耗損。為確保樓宇結構完整及用戶安全，必須定期檢查樓宇並找出問題，然後進行維修翻新。黃傑龍表示，樓宇健康措施和《建築物條例》對公屋和私樓是一視同仁的。「公屋和私樓都必須遵守規定。以私樓而言，情況好壞視乎大廈管理公司和業主立案法團採取的維修保養措施；而公屋則由房協等機構負責保養。我們認為，住戶的安全永遠是首要考慮，但私營管理公司卻可能會先考慮其他因素。有些公司可能會因成本高昂而放棄管理公共空間，或在管理質素方面有所取捨。話雖如此，我相信，合資格的管理公司和盡責的業主立案法團都會嚴格遵守有關規定及安全標準。」

劉博士指，港大的研究顯示，樓齡較輕的樓宇的保養和管理一般較舊樓妥善。「我們到訪一些舊樓時，發現天花板出現裂痕，混凝土亦有剝落。這些舊樓才剛換了管理公司，有關公司很快便安排維修和保養。我們亦發現，同一家管理公司對不同樓宇的管理質素雖有參差，但管理公司才接管那些舊樓不久，[管理質素難免未如人意]。」

政府已推行強制驗窗計劃及強制驗樓計劃，解決舊樓窗戶破損、鬆脫，以及混凝土剝落等種種問題。劉博士補充：「樓齡超過 10 年的住宅樓宇需參與強制驗窗計劃，但 [這] 取決於負責出資的業主。政府亦規定樓齡超過 30 年的樓宇須 [參與] 強制驗樓計劃。物業管理公司有責任為樓宇進行結構勘测。但我們到場觀察時，發現不少樓宇都沒有經過勘测。」

「對於樓齡超過 40 年的樓宇，長遠的解決方法是大規模地全面翻新。管理公司若能做到這點，管理質素便會好轉。不過，樓宇的業主立案法團擁有最終決定權，管理公司只能提出翻新建議。」劉博士提到港大的研究結論，指管理公司的努力已為樓宇狀況帶來改變。公屋方面，房協等機構負責確保舊樓的設施符合水電供應、空間、照明、通風等各方面的現行標準。黃傑龍解釋，現代化與翻新工程是非常重要的。「舉例來說，一些公屋並非每層都有升降機，對於長者來說十分不便。我們已翻新這些樓宇的升降機，讓升降機可到達各層，亦改善了供電及安全系統等等。」

為照顧於公屋居住的長者，房協在屋邨內增設了長者護理中心等長者設施。黃傑龍提到：「此舉不但有助解決長者健康問題，亦能防範於未然。」

黃傑龍認為，房協的功能猶如「房屋實驗室」，房協現正多管齊下，提供各種經濟援助，照顧長者需要。其中，新推出的丹拿山長者房屋項目主要為追求更佳生活質素的長者而設。項目除了為長者提供配套設備及傢俱，更會與養和醫院合辦中醫診所，並會興建設有泳池、康樂室及商務中心的會所。

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