



LWARB **REVEALING REALITY**



**SHARING A
HOUSE, SHARING
RESPONSIBILITY**
**RECYCLING IN
LONDON'S HMOS**



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Introduction

Are HMOs a big part of the recycling problem?

Despite the efforts of many Londoners, the capital is struggling to improve its recycling performance. The Mayor's London Environment Strategy¹ set recycling targets of 50 percent of Local Authority Collected Waste by 2025, with an aspirational target of 50 percent for household waste by 2030. Yet still, in a city of nine million-odd inhabitants, where the Mayor and 26 boroughs have declared a climate emergency², recycling rates lag behind the national average: 33 percent of total household waste in the city is recycled, compared to 44 percent nationally³.

The reasons are many, but Houses of

Multiple Occupation (HMO)—where more than three tenants share common areas—are thought to be a particularly challenging and hard-to-reach target for local authorities. They represent a growing housing trend, yet there is a perception that they are a contributor to lower recycling performance. Understanding their real recycling behaviours is therefore important to understanding overall performance.

Resource London supports London boroughs to deliver more consistent and efficient waste and recycling services. Its research helps to identify opportunities to ensure London reaches its recycling targets.

This project aims to take a 'deep dive' approach to look at HMO households that have kerbside recycling. It seeks to build a new understanding of the barriers to recycling for sharers living in HMOs, and how that compares with purpose-built flats. By revealing these barriers, this report provides opportunity areas that can compel readers to take action to improve HMO recycling rates.

¹ https://www.london.gov.uk/sites/default/files/london_environment_strategy_0.pdf

² <https://www.londoncouncils.gov.uk/our-key-themes/environment/climate-change>

³ <https://resourcelondon.org/wp-content/uploads/2019/12/Appendix-1-waste-and-recycling-data-201819-analysis.pdf>

About HMOs

Houses of Multiple Occupation are defined as properties that are rented out by at least three people who are not from the same household (or from the same family). They have individual bedrooms but share communal facilities, and are sometimes referred to as a 'house share'.

More than 210,000⁴ properties in the capital are HMOs, making up a significant—and growing—proportion of the London housing market. Anecdotal evidence suggests HMOs have a poor recycling performance, and as properties that are rented by three or more people of different backgrounds/families, there are inherent difficulties around responsible waste management. Transience is also a challenge and is hypothesised to be an important reason for why HMOs may recycle poorly.

Our research suggests that HMOs are highly varied, with no two households the same. They have wide-ranging occupant numbers, age ranges and household types (both flats and houses), while a single HMO could include friends or strangers. The occupants of HMOs are diverse: students, young professionals, social housing tenants, rehoused homeless, new migrants to the UK, and asylum seekers temporarily placed in HMOs by the Home Office. In short, there is no typical HMO.

In our sample, we focused on HMOs that are privately rented, whose tenants included a range of students and professionals, and that housed between three and eight residents. For this project, it was decided not to focus on overcrowded or illegal HMOs where other more pressing social issues such as widespread illegal subletting,

overcrowding or uninhabitable properties are inherent. The HMOs targeted were selected because they were expected to have higher potential for improvements around recycling. It was thought they would have fewer pressing social issues that might conflict with their desire and ability to increase recycling. Also that they might have less antagonistic relationships with their local council or landlords and so be receptive to communications about recycling.

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/493559/Local_Authority_Housing_Statistics_England_year_ending_March_2015.pdf

Ethnographic methods gave us insight into living and recycling in an HMO

Ethnographic methods combining interview and observational research were chosen to understand in depth people's day-to-day lives in HMOs. This approach allowed us to gather a broad range of evidence of both attitudes and behaviours⁵.

The research involved spending extended amounts of time with people in their household to understand the context in which they live and to observe their interactions with their domestic environments. Where possible the researchers observed the residents preparing food and speaking to other housemates. In addition to the ethnographic methods, the research also included online diary tasks.

Given that recycling is generally seen as a socially desirable behaviour, we didn't reveal to the research participants that recycling was the central focus of the project. Instead, we described it as being about household relationships and chores, including recycling. A key benefit of this approach was that research participants didn't overly prepare or change their recycling set-ups in advance of the research and they were less conscious about behaving in a 'socially desirable' way around waste issues in front of the researcher.

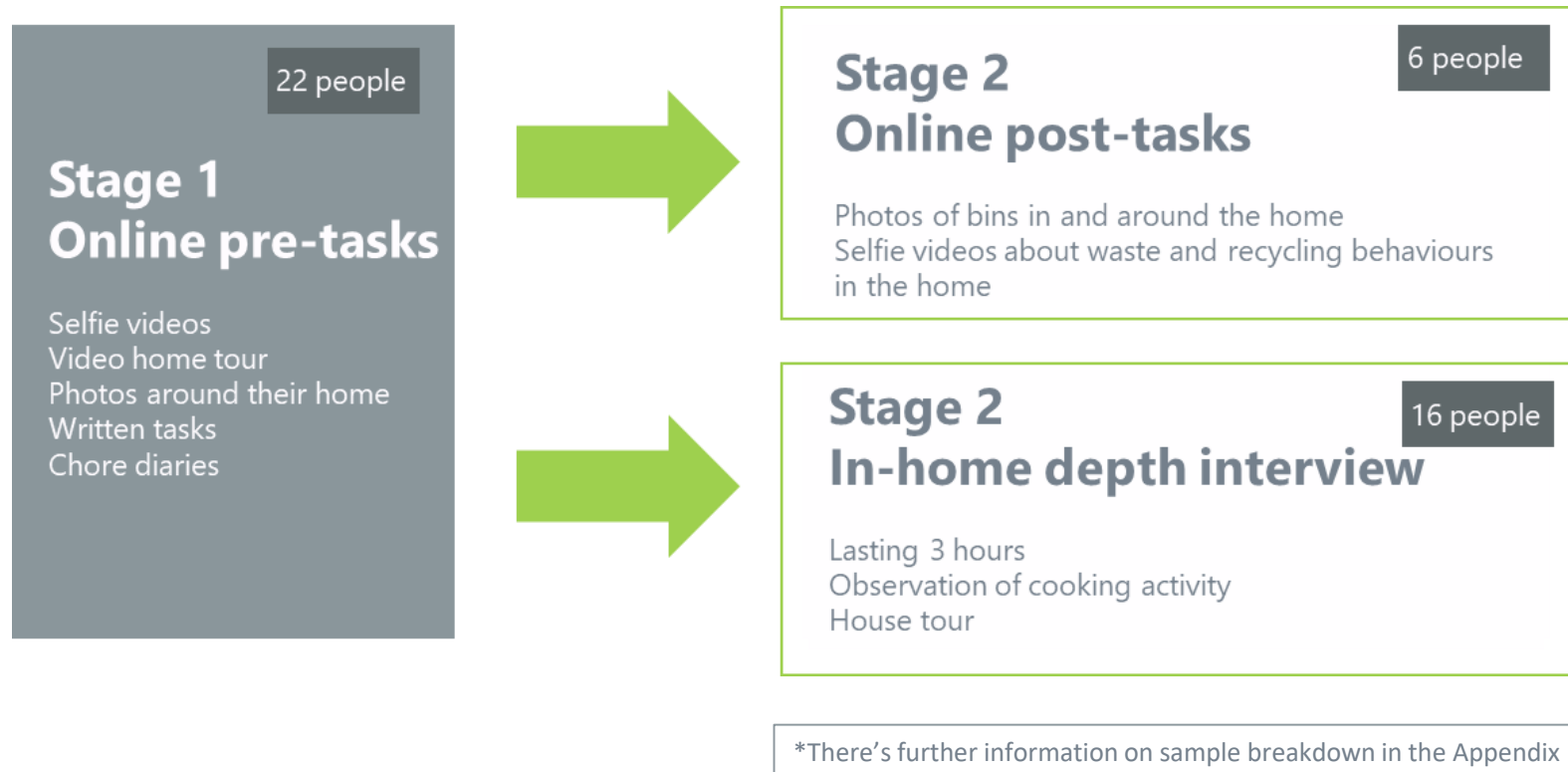
Much waste management research is technical and not based on a resident-centred perspective. A key benefit of our ethnographic research is that the evidence base is built on residents' lived experience.

Note: Previous ethnographic research was carried out in 2018 to explore recycling practices in a different kind of property, purpose-built flats. This was published in the 'Recycling in Reality' report⁶.

⁵ See Annex for more detail on ethnographic methodology.

⁶ <https://resourcelondon.org/wp-content/uploads/2019/02/Recycling-in-reality-report.pdf>

Ethnographic methods gave us insight into living and recycling in an HMO



How might we improve recycling in HMOs?

The aim of this report is to give insight into what life in an HMO looks like, and to provide a starting point for how to implement innovative solutions to low recycling rates in these households—for local authorities, for waste managers, and for landlords.

Specifically, we set out to:

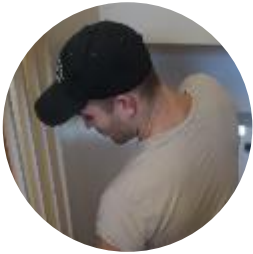
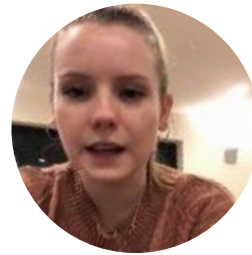
- Understand how HMO households organise domestic chores, why they organise as they do, and the range of different arrangements
- Within the overall chores set-up, understand individual residents' behaviours around storing, sorting and disposing of waste and the barriers in the way of such activities
- Examine the environmental, personal and social norms of occupants relating to recycling behaviours

- Explore the influence of household dynamics, specific to HMOs, on recycling and the role of landlords in shaping the waste management practices of residents
- Understand what sources of information are used by residents to inform their waste management practices
- Provide recommendations on how residents of HMOs may be engaged to become more effective recyclers

After sections that introduce the HMOs and look at how well residents were recycling, the document is structured into three key opportunity areas based on the major findings from the research. At the end of each section, under 'How might we...' statements, we have highlighted the main areas for improvement. These allow readers to start thinking about concrete actions to improve recycling behaviours and

effectiveness in HMOs.

The 'How might we...' statements identify leverage points for behaviour change so that stakeholders can develop interventions tailored to the needs of their residents. These are aimed at a range of key actors (e.g. local authorities, landlords) who can engage people living in HMOs in different ways.



Meet the HMOs

Who lives in HMOs?

We sought out respondents from boroughs both south and north of the river where prior research has indicated there to be a high number of HMOs—Croydon, Kingston upon Thames, Lewisham, Southwark, Ealing, Haringey and Brent. For the purposes of this research, we chose areas that have kerbside collection and that meet the Mayor’s expected standard of collection service—six dry recycling materials and separate food waste⁷.

We identified people with a range of characteristics and life situations. Overall, the majority of households were working or studying. There was a mix of settled and transient households, and none housed multiple families with children.

The sample included undergraduate and postgraduate students, professionals and those working shifts or on temporary contracts. Few were unemployed. This meant we captured a range of different routines.

- Overall, HMO residents were aged between 21 and 49 years old, which included some households of ‘older sharers’ who were over the age 39.
- Households included those who had grown up in the UK, along with those who had moved from abroad, from countries such as India, Portugal and Chile.
- Tenancy types varied from sublets to yearly contracts. Respondents had been living in their properties for between two months and 10 years. There was some

transience but many of the households were fairly settled.

- All properties were privately rented through a management company or private landlord. Some households had live-in landlords⁸.

Throughout the report, there are case studies from participants. All names have been changed to pseudonyms.

⁷ Five boroughs are co-mingled with 240L recycling bins, Kingston and Croydon are twin stream with different capacities. Four boroughs provide 240L residual bins, the other three offer 180L

⁸ Further detail on sample can be found in the appendix

What are the social dynamics of HMOs?

HMOs differ from other property types in that they are, by definition, made up of multiple unrelated individuals.

One of the objectives of the research was to understand how different social dynamics within HMOs influence recycling behaviour. This section describes the different social dynamics seen across the sample and sets out the context for the challenges described in later sections of the report.

Social dynamics ranged from friendly to indifferent

Some households in this research were made up of close friends—groups of young people from home or university who had moved in together to form tight-knit, highly sociable households from where other friends came and went. They tended to

adorn rooms with plants or photos, and some even had pets who were “part of the family”.

Others contained people who barely spoke to each other, or actively tried to avoid interaction. These respondents may have only met the other sharers at the time of moving in or had known just one person before signing up. They would often put this distance down to different personalities or interests. In several households there was one sharer who would spend more time by themselves in their room, and would be more isolated from the other sharers. Other HMO residents we met would get on well enough with other sharers to head to a local pub quiz or hold friendly conversations in the common living area.

While there was no major conflict seen across the households, some friction was caused by the playing of loud music, by individuals using their housemate’s kitchen appliances and leaving them dirty, or by general uncleanliness around the property. Despite some disagreements, we found a general positive environment in these households.



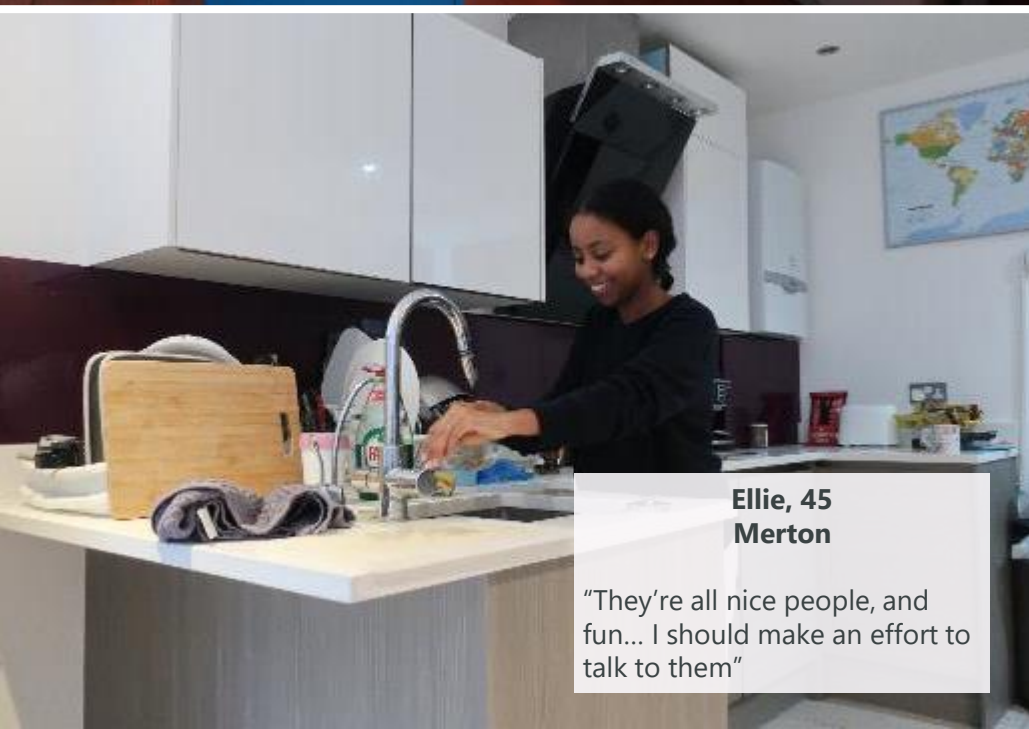
Grant, 45
Haringey

"I don't know much about him, he's odd. We [with live-in landlord] agree that he has to move out, but we don't want to leave him homeless either"



Juliet, 30
Lewisham

"I sometimes stay here [kitchen] with other flatmates and have breakfast together"



Ellie, 45
Merton

"They're all nice people, and fun... I should make an effort to talk to them"



Jordan, 25
Southwark

"We prepared a Christmas dinner all together. It was very nice, we had a great time"

Structured rules around household chores were almost non-existent

Overall, whatever the household dynamics, we observed that residents rarely had a structured set of rules or systems in place to divide up household chores or ensure the household ran smoothly.

In the majority of properties, there was an implicit understanding that everyone would do their bit. There was a general assumption that everyone would keep the communal spaces clean and tidy—for example, washing up after they had cooked. Most were of the opinion that everyone was an adult and could take responsibility.

The majority did not have conversations around household chores; when they did, this tended to be around washing up communal cooking items, and rarely around waste management. In a few cases, one household member would take greater initiative or responsibility for household

chores, doing more chores themselves or trying to check in to see if other people had done what they said they would. This was more often in households with close friends (where these conversations would not lead to fallouts) or those who had lived there for longer (who had established more of a leadership role). Sometimes these people felt a small amount of resentment, but most accepted that this was the trade-off when living with other people.

It was rare to see households with a cleaning rota. Those which did have some sort of system tended to be households where one or two people had lived there for a long time and were more invested in the property—for example, because they spent a lot of time there, were the landlord, or they valued the low rent and wanted to ensure their landlord did not have a reason to evict them.

Seven households within the sample had cleaners who were responsible for the communal areas. In the majority of these cases, cleaners were instigated by the landlord or management company and not the tenants themselves. However, in two of the households, an individual tenant had decided to take responsibility for the cleaning, and received a discount on their rent from other tenants as a result.

Both of these scenarios meant that often individuals did not feel as much responsibility for household chores, and by extension, recycling. Interestingly, often taking the bins out was not within cleaners' remit and so responsibility for this fell to the tenants. There is further information on cleaners in the description of Problem 1 – “No collective ownership”.

What are waste set-ups like?

Because properties were set up for multiple sharers, communal spaces were generally large enough to accommodate multiple bins. All houses had a bin for residual waste and a recycling container available (typically a bin or a box), which was always in the kitchen or living area, including the homes of those who were recruited as having low recycling motivation or were not recycling at all. Many households also used a council-provided food waste caddy, which in most cases came with the property, although a few of the tenants had ordered them from the council themselves.

Only one household bought a recycling bin for their current home, and this was because the entire property was unfurnished and they moved in all at the same time. They reported they didn't think much about it and just chose the most convenient ones, considering both size and price.

Some more modern properties had built-in under-counter bins with multiple compartments, although residents weren't always using these to separate materials. In one particular case, the sharers had two built-in bins under the counter which they used for 'recycling', leaving them with no general waste bin. This respondent confessed he thought that everything could be recycled and so was putting all residual waste into the recycling.

Because these houses generally had good sized communal rooms, there was little need for residents to improvise around storage of waste in the communal areas by using things such as makeshift bags or shelves. In Grace's house, for example, they relocated their former outdoor recycling box to indoors even though it wasn't in the best condition. A few households did use large shopping bags to collect their recycling next to the general waste bin which they emptied

and reused.

All households had both a residual and recycling external wheelie bin as a minimum, and a small outdoor food waste bin was very common. Some had several recycling bins for different materials, as well as other bins for garden waste. All respondents thought that they had the right number of external bins (and researchers observed that this was generally true), apart from in rare cases when respondents had contacted the council for food waste bins which were missing from their property.

The way the properties were set up meant that external bins sat quite close to people's front doors, so routes out from their properties to the external bins were fairly short.



What are waste set-ups like?



Food waste and general waste bins



Paper recycling bag

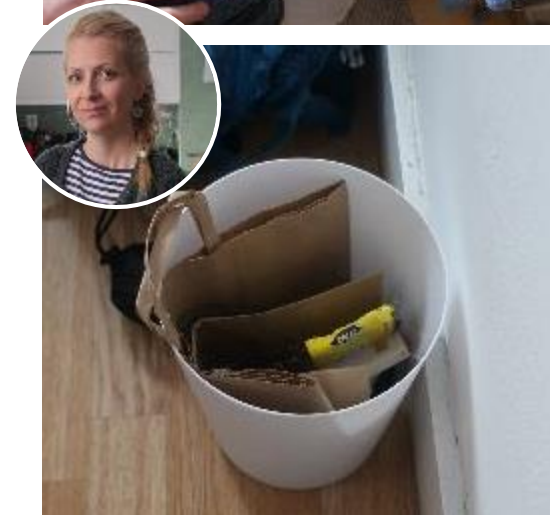
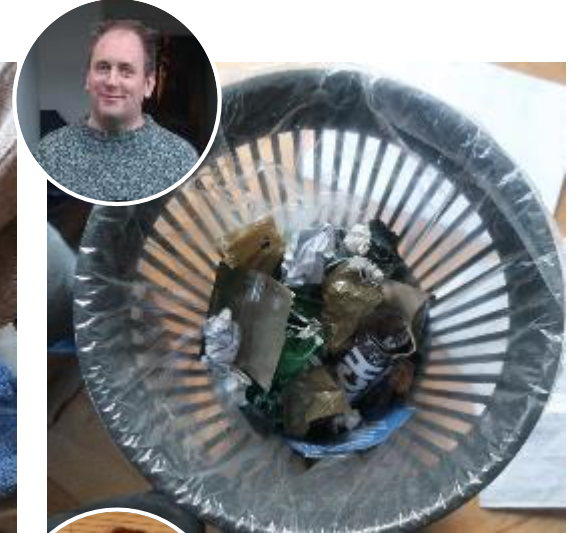


Recycling outside of communal areas was rare

Waste set-ups in rooms other than the kitchen were either non-existent or inconsistent.

In bathrooms, there was generally only one bin where all waste items were placed, mixing recyclable and non-recyclable items in these. Few people made the effort to take recyclable items to their main recycling bin, even though it was very close to their kitchen.

In bedrooms, the majority had a single residual waste bin or bag in their rooms, which they either emptied into the residual kitchen bin or took straight outside to the residual bin. There were few reports of individuals splitting out their general waste and recyclable items into communal bins.



Case Study

Meet Jay

Jay is 29 years old. He moved to London 10 years ago to study and has lived with various people over the years. He recently returned to London from teaching abroad and decided to take up a new career as a baker. The hours he works are random, dependent on his shift pattern—sometimes early mornings, sometimes daytimes and sometimes nights.

Six months ago, he moved into a house in Southwark with three other people who he had never met before. It's an old terraced house with a small kitchen. Shelves and cupboards in the living room are used as overflow for food and pots and pans.

The people he shares with are in their thirties and have lived together in the house for about eight years. One of them has a cat, which has caused some tension recently. Jay has a good relationship with them (whenever their routines happen to coincide), chatting in the living room, sharing recipes, and smoking in the garden together.

They used to have a cash kitty for communal items but have stopped that since their house got broken into. Although rare within the sample as a whole, they try and stick to a cleaning rota, with each person cleaning the house once every two weeks, and they generally care about keeping it tidy to avoid mice.

In the living room, they have a residual bin and a recycling bin next to the fridge, which were there when Jay moved in. He only has a plastic bag in his room for residual waste. He tries his best to recycle but isn't very consistent. He often buys meal deals on the way home from work after a night shift and just throws the packaging in whichever bin is closest. He's been recycling certain things for years without noticing that it says 'unrecyclable' on the packet. He has never had a discussion with his housemates about recycling. He sometimes takes the recycling bin outside, but most often this falls to other housemates who have lived there for longer and who are at home more frequently.





Case Study

Meet Miles

Miles is 27 and works for a theatre and musical company. He moved in with two of his friends two years ago, one of whom owns the house.

Two of the inhabitants have irregular schedules, and often travel around the country for work. The live-in landlord has a more predictable routine, so takes charge of many of the household tasks. He also hired a cleaner, who visits once a week to do the “bigger tasks” like hoovering or laundry. The cleaner will occasionally empty the internal bins into the external bins, following written rules from the landlord.

They all share food, and regularly cook for each other. They also make sure to have at least one breakfast together a week. They describe their household as a family more than flatmates. They

have filled the house with personal items that reflect their shared love of theatre and music. There is a cat, which they all take care of. One of the things they enjoy most is hosting parties and get-togethers with all of their friends.

Miles and his housemates are motivated to recycle, as they feel it’s an easy way to keep their home nice while helping the environment. They usually have a lot of recyclable waste from the parties they regularly host so it also feels quite “natural” to them. They don’t own an internal recycling bin, preferring to use a bag hooked to a cupboard door for plastic, glass and metal, and building a pile of paper and cardboard on the counter. The external bins stand by their parking place, so they find it convenient to take the items out when they leave in the morning.

Case Study

Meet Zain

Zain is 24 and came to the UK from India a little over a year ago to study for his Masters degree. He lived in university halls for a few months, then moved into a shared house in Lewisham with four other people. People rotate in and out of the house every few months, with the longest standing tenant having spent nearly two years living there. The house is very quiet at all times, and very clean and organised. Each shelf in the kitchen cupboards, fridge and freezer is labelled with the room number they belong to. A cleaner visits once a week and cleans the communal areas, including taking the bins out and changing the bin bags.

Zain's landlord is very involved in the life of the household, as he regularly visits the house and sets strict rules. This includes a ban on laundry after 10pm and a ban on smoking in the garden. Zain doesn't really know the

people he lives with. He rarely interacts with them but when he does, their conversations are always cordial, if a little short. He doesn't feel very at ease with them, so avoids going into communal areas if they are around.

Zain didn't know what his flatmates were doing when it came to waste. He had one conversation about the basics of recycling with one of his flatmates' partners when he first moved in, as he was new to the British recycling system. Other than this, he relied on seeing items in the bins to understand what his flatmates were doing. He often saw errors in the bin, either from his flatmates or cleaner, but never addressed these with anyone else. Despite the landlord's strict rules, there were none on the topic of waste and recycling—so Zain often defaulted to “playing it by ear”.



How good were people at recycling?

Describing oneself as motivated to recycle is one thing, but actually following through with consistency in the sorting and correct disposal of waste is another. We heard many people make claims to the former, only to watch them behave quite differently.

Awareness of recycling didn't equate to accurate recycling

In general, there was a high awareness of recycling and most respondents said that they thought it was important to recycle, alongside other environmentally friendly behaviours.

For example, a few respondents, such as Grant and Jordan, mentioned that media campaigns and environmental activists like Greta Thunberg and Extinction Rebellion encouraged them to gain more of a sense of 'urgency' about the environment and recycling.

On the surface, many respondents reported a high motivation to recycle. In all the households visited, there was provision for recycling and all the respondents were making some effort to recycle.

Some respondents in particular identified as

'environmentally friendly' people. For example, Ellie described herself as a very keen recycler. She became interested in the topic along with other 'green' issues after watching a documentary about the meat industry. She regularly read articles about recycling and had learnt which types of plastic she could recycle.

Others explained that they tried to recycle because it is 'the right thing to do'. Even those who didn't feel that recycling was very effective in reducing environmental impact still made an effort. For example, Grant felt that trying to recycle was "better than nothing" and Eric said, "I feel like you may as well recycle, even though in the grand scheme of things, it's not the biggest environmental issue".

Despite this, we saw that households were

not in fact recycling very well. There was evidence of inconsistency in recycling behaviour by individuals. A large amount of contamination was also observed, with residual items placed in recycling bins and recyclable items placed in residual bins. However, the social dynamics in the households were characterised by a lack of communication and discussion between sharers about their recycling behaviours. This will be covered in more detail in later sections.

Recycling was driven more by social desirability than individual motivation

People weren't consistent in their recycling—they often recycled only in certain contexts or at certain points in time.

There was a clear gap between how much people were recycling in the communal spaces in their properties (e.g. kitchens) compared to the private space (e.g. bedrooms). Items were more likely to be recycled if they were in communal spaces than in private spaces, suggesting that implicit social pressure is a key motivator for recycling, given there weren't explicit rules or direct pressure from sharers to recycle. For many, recycling in private spaces was less convenient—for instance, few had recycling bins in these rooms. However, we observed this trend across all the people we spoke to, including high engaged recyclers who went to significant efforts to recycle in communal spaces.

People would follow the pre-set recycling system and try to recycle because they wanted to be seen as environmentalists or that they cared, or even just to not cause conflict and follow the rules.

On the other hand, in more private spaces like bedrooms or bathrooms where social pressures were less apparent, recycling consistency dropped. Dwellers felt less of a push for them to recycle when there weren't existing set ups or rules.

This was also the case even for those who described themselves as good recyclers or 'environmentally-friendly' people. For example, Grace was very keen to recycle and pushed her flatmates to do it better, but in her room she would only sort items if she felt they were 'significant' enough to make a difference (e.g. large bits of cardboard). The

bathroom she used was also close to the kitchen where the recycling bin was, but she wasn't sorting recyclables from this space.

In short, most sharers' desire to recycle seemed to stem from implicit social pressure within the HMO household rather than from intrinsic motivation.





“At uni, everyone’s watching so it’s easier to make sure you recycle” Chet, 24

Small mistakes by individuals added up to ineffective recycling at a household level

When looking at the contents of the household recycling bins, there was a lot of evidence of contamination, or that residual waste bins contained recyclable items. It was clear that not all individuals within the household were operating at the same level of recycling—some were more motivated than others and some had more knowledge than others.

On the one hand, some were recycling badly through lack of motivation. However, others were over-recycling in an effort to be as good as recyclers as they could be, and to signal to their flatmates that they were 'good' people because they tried hard to recycle.

Even if there were some individuals who were recycling well, others were frequently undermining their efforts due to their lack of

knowledge. Adding to the fact that no one in the house was flagging the mistakes or giving feedback, lots of little mistakes by individuals meant that at an overall level, the households weren't recycling well.

In Conclusion

The social nature of HMOs—the fact that there are multiple individual or separate units living within one household —appears to have a huge impact on recycling effectiveness.

Recycling appears to be driven by two main factors:

- The existence of collective household motivation to recycle (increasing social desirability)
- What individuals know with regards to how to recycle well

We will explore these factors further in the following sections.

Problem 1: Households don't take collective ownership for their waste and recycling

Generally, recycling in HMOs is the sum of individual recycling efforts, therefore the quality of recycling is also a sum of how accurate their efforts are. On the whole, HMOs shouldn't be thought of as a 'household' unit with shared values and goals. Not all sharers operate at the same level of recycling and few communicate their varying recycling habits.

In most cases, sharers don't feel that waste in general, let alone recycling set-ups, is a topic worth discussing. Few think to take the initiative when it comes to ensuring they are recycling as well and efficiently as they can, preferring to rely on the systems already in place when they move in. Poor recycling behaviour also goes unchallenged—many find it just too socially²⁶ awkward and unrewarding to pick up on other sharers' mistakes.

Bins rarely came up in conversation

Across the households, there were very few instances of sharers talking to each other about waste and recycling.

Some people didn't know their flatmates and very rarely spoke to each other. In some of the less sociable households, sharers would avoid spending time together in communal areas. When sharers within these properties did interact, it was usually to discuss urgent household matters or issues which had a significant impact on their lives. These conversations weren't always held face-to-face, with some preferring to interact on group chats. Waste rarely featured in these conversations—it wasn't seen as an urgent issue or one that had much impact on their day to day lives.

Even in households where sharers were close, waste and recycling were not seen as

a talking point, let alone a priority topic. Discussing waste felt unnecessary, and people didn't consider the fact there could be any benefits. This meant most saw little point in discussing it with their flatmates. As we saw earlier, that meant tolerating other housemates' poor recycling, even among strong recyclers.



Grace doesn't speak about recycling much with her flatmates. She feels they are not as good at it as she is, but isn't sure if it's out of laziness or lack of knowledge.

Recycling is an individual behaviour

Recycling is a somewhat individual behaviour. People were likely to be sorting their waste when they were alone in shared spaces, with nobody around to observe what they were doing and few consequences for making bad decisions.

This individual behaviour meant that it was difficult to identify whether things were being correctly recycled, and which sharer was at fault. The lack of accountability (and regular presence of items in the 'wrong' place) meant that residents often lacked commitment to ensuring their recycling was 'good quality'.

The weakest individual recycling behaviours were seen in socially distant or larger HMOs with five or more people in which housemates seldom interacted with one another. In these situations, it was harder for

engaged individuals to monitor and police recycling behaviours, and there were more people who might undermine good recycling behaviours with small mistakes. In these households, people felt less social pressure and recycling became more anonymous.



Ellie was knowledgeable and passionate about recycling. She often noticed items in the wrong bin but wasn't sure how to react, beyond occasionally moving items herself.

Residents often refused to correct the mistakes of others

People didn't always know what their flatmates were doing when it came to recycling and were unsure whether or not they were doing a good job.

In some households, sharers avoided spending time with other sharers in communal areas and so relied on items they saw in the bin to establish what their flatmates were recycling. When sharers saw items in the wrong bin, many would leave them there as they felt it wasn't their responsibility to move them. Others would move the offending items but did so silently.

There were multiple reasons for this. Some were simply trying to avoid what they perceived as unnecessary conversations or conflict with their flatmates. They often felt it 'wasn't their place' to call out others' behaviour, since they weren't officially responsible for the property or their

flatmates' behaviour. Others felt they lacked sufficient recycling knowledge to call out behaviour and worried about being in the wrong.

In addition, most weren't motivated enough by recycling to pick up on others' behaviour. Only people who are intrinsically motivated by a strong desire to protect the environment would put the effort into challenging other sharers' recycling behaviours. However, in general even they didn't want to rock the boat or introduce social awkwardness so let things go unchallenged.

Zain regularly noticed that non-recyclable items were put in the recycling bin. They were usually placed there by his cleaner or his flatmates, who he rarely spoke to and tended to avoid. Despite describing himself

as an environmentalist and someone keen to recycle, he never picked out the offending items because he felt it had little impact. This inertia also extended to cleaners. Individuals didn't challenge cleaners when they made mistakes by putting items in the wrong bins. Often, this behaviour just went ignored, as sharers felt they lacked the authority to criticise a cleaner employed by their landlord, or because no one sharer took leadership in, or responsibility for, calling it out.

In short, even where mistakes were spotted and cared about, they went unchallenged. This leaves a high risk of bin contamination and items being incorrectly recycled.

“I think you do see some things in the wrong bin like cartons or food trays in the general rubbish... I just let it be, it’s not my house”

Zain rarely talks to his housemates and avoids the kitchen if they are there. He isn't sure how good they are at recycling, and sometimes sees items he feels are in the wrong bin. His house also has a cleaner who is responsible for putting the bins out. Zain isn't sure what they do and reflected that they might be emptying internal bins into the wrong external bins. Despite caring about waste and the environment, he feels it isn't his place to correct any of them as it isn't 'his' house.



Abiding by the rules of ‘historic householders’

Sharers usually adopted the recycling set-up and system that was in place when they arrived, even when many tenants had come and gone and could have contributed to changes.

People rarely felt strongly enough about recycling to initiate new recycling systems and thereby potentially cause disagreement within the household. This is exacerbated by the lack of household communication around waste and recycling.

People also struggled to assess the effectiveness of their current systems given the limited interaction and conversation and low awareness of what others were doing. Instead, most worked out how well their waste system was working based on the visual cues they received from their flatmates—namely, items they could see at the top of the bin.

The default household recycling set-up seemed to override most individual recycling motivation. This inertia had both positive and negative repercussions:

On the positive side, even those who were not very motivated to recycle still tended to follow cues as to what other people were doing in terms of recycling. For example, we spoke to individuals who had moved in with people they didn’t know and who had started recycling because of the set-up of the household. The cues that prompted them to recycle included the existence of separate bins in the kitchen and the existence of signs placed near the bins that indicated which items were recyclable.

On the negative side, sharers were unlikely to challenge ineffective set-ups and wouldn’t push to improve them. Sharers rarely had conversations about waste set-ups and habits. Further, by following other’s

behaviours, some sharers recycled ineffectively and contaminated recycling bins.

There were a few examples of people trying to influence the recycling culture in their households by setting up new systems, drawing up rules and persisting with their flatmates. These were usually people who were very motivated to recycle well. For instance, Grace had drawn up an ‘Introduction to the household’ leaflet that she gave to people when they moved in and which mentioned the recycling bins and collection days. Despite this, she was still uncertain what her flatmates were doing and whether they were following her rules.

It gave the impression that the effort to share knowledge was done in response to an individual desire to improve the behaviour of others, but that they weren’t motivated enough to follow up on the collective behaviours.



Case Study

Grant, 45

Grant follows his flatmate's system "just to keep peace", but he doesn't really know if it's the right way to do it. They have two under-counter bins, which he says are both for recycling, and if his flatmate throws a plastic bottle into one of them, Grant continues putting similar bottles into that bin and the rest of the materials into the other recycling bin. Moreover, they don't have any residual bin.

'I've no idea how the bins get outside'

Many sharers weren't sure how or when their waste was collected, and what action was necessary in order to make it happen. Many assumed that the other people they lived with were taking the rubbish out, but often didn't know specifically who. When it was consciously decided, the task of dealing with external bins was usually delegated to sharers who had been living in the household the longest.

Many dwellers were uncertain as to what purpose each of their external bins fulfilled. For instance, Chet wasn't sure how his bins were collected. He had never put them out for collection, although he usually had to bring them back from the kerbside. Upon reflection, he decided that one of his flatmates was probably putting them out on the kerb.

Grant told us that they were so confused about the different purposes of the external bins that they just "dumped everything in the first one".

When Emma was asked to show us around her external bins, she was surprised by what items were inside each of them. She was also unaware that they could separate food waste, even though this small bin was visible alongside the other wheelie bins.

Only in some cases, HMOs had designated roles or rotas for putting external bins out for collection. This invariably involved having a calendar in the kitchen signposting the days. One household had marked the calendar with different colours for when recycling and general waste bins were due for collection, since each one went out fortnightly.



Lack of leadership: Landlords and house leaders had little presence in the set-up of the recycling system

As mentioned previously, sharers will follow rules and existing set-ups as a default.

Therefore, clear leadership within households helps to pressure sharers to abide by certain recycling standards. In our sample, there were different models of leadership and followership across households. Some sharers were highly motivated and self-nominated as 'recycling leaders', being more likely to speak up about waste and recycling.

On the other hand, landlords were little involved in issues about waste and recycling. Dwellers didn't have much contact with them and when they did, it was mostly around cleanliness of the property or rent.

Only occasionally were letting agents or landlords involved in showing new tenants around the property. In addition, there was never anything written into contracts about recycling, which led to sharers not really knowing what their landlords cared about.

All respondents reported that they respected the landlords' rules and were happy to follow them, including the rare rules related to waste and recycling.

These findings reveal a key opportunity area: landlords, an untapped resource, have the power to influence the household's behaviour. Setting recycling standards and clear rules would make it easier for tenants to recycle well.

Opportunity: Supporting households to perceive recycling as a collective responsibility

How
Might
We...



- Empower motivated recyclers to challenge other sharers' incorrect recycling behaviours?
- Encourage sharers to associate recycling with other shared tasks like cleaning?
- Draw attention to the discrepancies in recycling behaviour between individuals?
- Emphasise the negative consequences of poor quality recycling across the household?
- Encourage all residents to engage more with household rules and chores?
- Encourage landlords to take responsibility for and care about recycling ?

Opportunity: Prompting conversations around waste and recycling

How
Might
We...



- Prompt sharers to talk about waste and recycling, including 'rules' for the outside bins ?
- Encourage sharers to compare their recycling behaviours?
- Make recycling at home feel more scrutinised and 'public'?
- Utilise household leaders to communicate recycling knowledge and information?
- Encourage cleaners, as part of the household, to do it right?
- Identify an effective messenger , messages and channels between tenants, landlords and local authorities?

Opportunity: Encourage questioning and assessment of waste set ups

How
Might
We...



- Encourage sharers to consider a recycling set-up when they are first moving into a property?
- Encourage sharers to reflect and assess their current waste set-ups?
- Ensure there is a good baseline 'default' (e.g. correct bins and signage) for sharers to work with?
- Help facilitate the creation of recycling systems in households with weaker social bonds?
- Utilise landlords and house leaders to put efficient recycling set-ups in place?
- Educate landlords on the benefits of having effective recycling systems?
- Encourage landlords/housing associations to install recycling rules and systems?
- Better communicate collection day and what needs to happen to ensure waste rules are followed?

Problem 2: People assume their recycling knowledge

The world of recycling is confusing to many. People were unsure how their waste system worked and how they could ensure their items were recycled. Although they generally knew that their recyclables need to be cleaned, many assumed their recycling would be re-sorted at a later stage of the process. And when coupled with a high level of confidence in their incorrect knowledge of recyclable items, particularly about plastic items, this confusion often led to people contaminating their bins.

A guessing game: understanding of the general waste system is low

The people we spoke to lacked key knowledge of the wider recycling system, such as the re-sorting and processing of materials, even if they were well informed around what they can and can't recycle.

Overall, the people we spoke to were unsure what happened after recycling left their home, and some were cynical about what the local authority would end up doing with their waste. Some people, such as Paul, speculated that their recycling would be mixed with general waste, shipped to other countries or thrown into their landfills, even going so far as to say that "recycling is a scam". However, he would still try to recycle, and would even re-sort items when he saw they were in the wrong bin, because his previous partner was very environmentally focused and had taught him good behaviours. On the other hand, people found it much easier to understand the trajectory of their food waste. They felt they could picture what would happen to it,

how it would be reused and what benefits there may be, meaning they were more motivated to sort their food waste carefully.

Perhaps this lack of knowledge about the end-to-end recycling system is unsurprising, given that many of those living in HMOs were not sure what the purpose of each external bin was. Sometimes, they were only confused about what they could or couldn't put into the recycling bin, whereas other respondents couldn't tell the difference between a refuse bin and a recycling bin.

Among the common misconceptions was that over-recycling was better than under-recycling. This was often fuelled by the belief that mixed waste would be resorted at a later date. This led to many of the people we spoke to recycling "if in doubt". This would contribute to sometimes high levels of contamination.

Although awareness of material contamination was low, awareness of residue contamination was high. Many cleaned out their recyclables, with some going to significant lengths to do so. For instance, Miles regularly put items in the dishwasher to ensure they were clean enough for the recycling.

Uncertainty about "how clean is clean enough" came up regularly, especially among highly engaged recyclers. Still, some items were more likely to be cleaned out than others, with tins and jars being more regularly washed out than plastic bottles or cleaning product packaging. Most struggled to remember where they had learned about residue contamination. Some had observed others cleaning out items and followed suit. Others felt it "made sense" as they wanted to keep their recycling bins clean.

Case Study

Jake, 24

Jake believes he is well informed about recycling, but at the same time has some false beliefs he has never second guessed or learned about—he just trusts that they're true. He (as with many respondents) has read lots about the benefits of recycling—for example, he said "you read a lot about plastic in the ocean, climate change." But he never read (actively or passively) anything about how recycling is sorted and processed. Jake never realised different councils could recycle different things. He is from a small village near Cambridge, and stated "you'd think in London they can recycle everything."



“I follow my sixth sense”: People assume they know what to do with items and won’t recheck information

Many based their knowledge of what can and can’t be recycled on ‘common sense’ or ‘general knowledge’. This common sense is built on:

- A basic level of recycling knowledge, with people feeling clearest on recycling glass, cardboard and tin, and what to do with their food waste. Few could articulate where they had gained this knowledge.
- People often based their recycling decisions on parameters like the size of the item (for example, if it’s big it should be recycled), the feel of the item (for example, if it’s solid it should be recycled) or what the item had been used for (for example, if it touched food it can’t be recycled).

As many felt their recycling behaviours were based on ‘common sense’, they assumed this was shared by the general population, including their flatmates. This meant they

would assume their flatmates were following universal recycling rules and recycling the same items as them, even if they were wrong. When asked about her flatmates’ recycling knowledge, Grace responded: “How would they not know? Everyone knows.”

On the other hand, some people put non-recyclable items in the recycling because they wished they were recyclable. This ranged from people throwing things in the recycling because they assumed it was recyclable to “Well, it should be recyclable”. Eric, for example, assumed that almost everything was recyclable because he cycled past the recycling centre every day, and so assumed that his borough was a leader in recycling. Paired with the perception that recycling is re-sorted at a later date, this meant that some highly engaged recyclers were regularly contaminating their bins.

This reliance on ‘common sense’ runs deep and informs the majority of recycling behaviours. It often means that people felt confident about items despite having never checked if they were recyclable. Even when they had doubts about specific items—for instance, plastic bagging was a recurring issue for multiple respondents—they were unlikely to check information about it, either on the back of packaging, online or by asking someone, including their housemates.

Case Study

Caroline, 26

Caroline doesn't check packaging and when in doubt, she puts things in the recycling bin. For example, she would empty out leftover salad into the residual bin but then put the plastic salad bag into the recycling, despite it not being recyclable. "When in doubt, I put it in...I don't know why they can produce plastic that isn't recyclable."



Opportunity: Prompting moments of reflection on recycling knowledge

Creating moments for sharers to reflect on their recycling knowledge and behaviours can help challenge their assumptions around waste systems and recyclable items. For example, key moments for reflection are:

- a) When people move into a new household, given they are setting up various systems throughout the house which are likely to remain set for some time
- b) When sharers change a service provider (e.g. electricity, internet) as these usually prompt discussion within the household and offer opportunity to discuss waste management systems
- c) When the council informs residents about a change in the council tax rate (e.g. start of the financial year). Residents are likely to engage with this information, and so may also engage with recycling literature

Opportunity: Prompting moments of reflection on recycling knowledge

How
Might
We...



- Provide accessible cues on difficult items?
- Provide recycling information at the moment of recycling?
- Encourage people to refer to trusted sources of information, particularly from the council?
- Share information on how the recycling system operates in an accessible and tangible manner?
- Make the benefits of recycling feel more concrete?
- Reduce confusion around difficult items to avoid contamination through over-zealous recycling?
- Enable landlords and sharers to spark conversations about waste when new sharers move in?
- Encourage sharers to spot incorrect behaviours and discuss about it with the other people in the household?

Problem 3: Trustworthy information about recycling is ignored

Few people sought out information if they were unsure about specific items, instead relying on their own pre-existing knowledge. If they did check, they were unlikely to refer to trusted sources, instead using the most accessible sources (i.e. Google). Many were disconnected from their local council and were likely to ignore council information relating to recycling, if they had received it.

Information about recycling is available but people are unlikely to seek it out

Residents were unlikely to seek out information if they were unsure whether an item was recyclable. It felt time consuming, especially at the moment of recycling when they wanted to do it immediately. As mentioned above, respondents often decided where to throw a recyclable item based on parameters like the size of the item, the feel of the item or what the content of the container was, being common to put it into the recycling bin. Jay, for example, had never checked to see if his parcel wrapping was recyclable. When he did check during the interview, he saw a 'check online instruction' on the packaging but reported that he had never done this before and probably never would.

In some cases, people would check if they felt invested in recycling a particular item—for instance, if someone was watching them

recycle or as part of a conversation about an item with friends or flatmates at the point of disposal. Those who did check usually searched online for information about specific items they were unsure about recycling and clicked on the first link that came up. Few thought to use trusted sources such as council websites, as described later in this section.

Some types of information stick better than others

Despite receiving recycling information from many sources, people based their knowledge of recycling systems and recyclable items on a limited number of sources. There were some patterns in the channels that seemed to be more effective, which present possible points of leverage for improving recycling behaviour.

Those that stuck:

- The back of packaging, which people referred to when in doubt about an item. They found this information easy and quick to use. However, people were unlikely to recheck packaging for items they thought they knew about or items they felt were 'common sense'.
- Word of mouth.
- Watching other people recycle: Some respondents matched behaviours they observed others doing. For instance, many mentioned that they learnt to wash out recyclable items from their family, partners or colleagues, although none mentioned they learnt from their actual or previous housemates.
- Things found passively in places that felt surprising: Multiple respondents had come across posts or adverts on social media about recycling specific items which stuck with them. However, they were unsure who they were posted by.
- In the few HMOs where this was observed, signs/posters from the council placed in the kitchen for people who were new to the UK and still learning the recycling system (although these were often out of date).

Those that didn't stick:

- Signs on external bins: These were often too little, too late. By the time people were outside, they were unlikely to take waste back inside to re-sort it, and only one respondent mentioned he learned instructions from the sticker on the outdoor bin. Signs seemed often to be out of date, looking old and worn out.
 - Council leaflets: These were sometimes kept by respondents (e.g. on fridges) but rarely referred to.
 - Council websites: People were unlikely to check what items were recyclable on council websites, preferring to check the first few links to come up on their search results.
- People wanted explicit and consistent information about items, including examples and, preferably, explaining the reasons why that item was or wasn't recyclable (for instance, what happens after that material is collected and how it is processed).

'I'm not sure who my local council is': People are disengaged from their local council and area

Attachment to a local area can be a strong driver of responsible behaviour. Yet the majority of respondents we met had a low level of attachment to their local area, unless they had lived there for many years. Some regularly moved from property to property so didn't have the time to build any kind of attachment with their area.

Some respondents were unsure which council area they lived in. This was particularly the case for people who had recently moved into the household or recently moved to the UK.

People were generally disengaged from the council and unaware of the services it might provide. Few of the people we spoke to interacted directly with the council, usually deferring that job to household leaders or

the landlord. Council tax was the main reason for getting in touch with the council, but not all respondents paid it (e.g. students) or paid it directly to the council (e.g. some transferred to a lead tenant).

Considering this low engagement, it isn't surprising that most were generally unaware of what services the council provides in terms of waste. In extreme cases, a few were even unsure how the council relates to their waste and recycling. Some respondents, especially people who had recently moved to the UK, were unsure who collected their external bins.

While the majority did recognise that the council is responsible for collecting their bins, they were unlikely to get in touch with the council to raise any issues or questions

about waste and recycling, either leaving the issue unresolved or going through their landlord.

Few people knew their neighbours very well. There was certainly not much discussion about waste and recycling between neighbours, so respondents were unlikely to know how much their neighbours valued recycling. A few respondents reported that they saw their neighbours placing their bins out for collection. And on the whole, front gardens were so small and accessible for collection that residents did not need to put their bins out onto the street, thereby reducing the visual cue that bins were collected on certain days.

Council communications are ignored

The majority of people we spoke to were unaware that different items could be recycled in different councils. There was one respondent, Grace, who knew the differences in council recycling practices, and felt Ealing accepted more items than other councils. Many were frequent movers who relied on their existing knowledge of the recycling system at their previous property. When they moved, this knowledge was not challenged. This lack of understanding of council standards led to incorrect or lax recycling behaviours.

When seeking out information about recycling, few thought to check council websites. Instead, they would click on the first website they came across. For example, Emma and Jordan would sometimes search the internet to see if an item was recyclable and would accept information from the most visible and accessible source of information. Emma, on the other hand, had learned about the items that were recyclable in her area from a council leaflet, but she no longer knew

where that leaflet was.

Communication from the council about recycling (e.g. leaflets) typically wasn't well used. Usually only one or two sharers would look at it before discarding it, meaning that the information wasn't passed around the whole household. In addition, leaflets that came through the door were often classified as junk mail and were ignored or thrown away quickly.

In some households, leaflets from the council had been put up in the kitchen or in communal areas for sharers to refer to. These were not always placed in the most impactful spot—for example, some were placed in a kitchen cupboard. These leaflets or signs were usually up when the tenants had moved in, so they struggled to identify where they came from. Other times, they were pinned up on notice boards by current tenants but then quickly forgotten. Eric, for example, had the council leaflet on his fridge but had not referred to it. In fact, when he looked at the

leaflet during the interview, he was surprised to find that cleaning product bottles were recyclable.

There was a small minority who referred to the council leaflets, mainly people who were new to the UK and the recycling system. For instance, Zain had based most of his recycling knowledge on the council leaflet he had found attached to his fridge. In Chet's house, there was a printout of the council website taped to the wall above the bins which he sometimes referred to if he was unsure. And Emma, who just moved from Chile, got her information from the leaflet she could no longer find.

Council communications were not seen as engaging or important, or as a call to action. Few respondents remembered the content of communications from the council or felt it was instrumental for their recycling knowledge.

Opportunity: Engaging communications from authorities

How
Might
We...



- Create more visual cues that are frequently seen by HMO dwellers?
- Create more engaging, visual and relatable council communication?
- Access multiple individuals with different information needs within HMOs as well as communicate at the household level?
- Make the council website a key/first source of information?
- Engage with landlords to help council information reach HMO residents effectively?
- Deprioritise less trustworthy or locally relevant communications?
- Make people feel an attachment and pride to their local area?
- Link recycling to generating a cleaner and more pleasant area?
- Encourage people to perceive recycling as a desirable and expected behaviour in the neighbourhood?

Conclusion

How can we improve recycling in HMOs?

HMOs represent a particular social dynamic in which social pressure plays a significant role in the sharers' recycling behaviours. Households are composed of individuals who behave in an uncoordinated manner rather than as a cohesive whole.

While this can have a positive impact, given it can encourage them to recycle by following others' leads, individual efforts are often undermined by the lack of recycling knowledge and lack of consistency between dwellers. Lots of little mistakes by individuals meant that at an overall level, the households weren't recycling well.

Dual approach: Two main ingredients needed to increase recycling

HMOs are, by definition, social environments. Effective recycling in this context depends on every member in the household working together to avoid making small mistakes. Therefore, a focus only on individual behaviour will be ineffective. Any attempt at change must influence HMOs as a whole, as well as the individuals.

Opportunities lie in upping the status of recycling within households, encouraging individual and collective responsibility and improving communication between sharers. This must then be supported by an understanding of how to recycle effectively and the consequences of not recycling correctly.

Shared Responsibility

One challenge uncovered by this research is a lack of collective responsibility for recycling in HMOs. Sharers tend not to have a collective goal to be a good recycling household. Residents often go along with the 'default' waste set-up, which often comprises ineffective recycling approaches instigated by their landlord or previous sharers.

This is exacerbated by the fact that HMO inhabitants have little to no relationship with their local council and have no external motivation to recycle. However, there are 'bright spots'—individuals who are motivated to recycle but who struggle to galvanise other sharers into action.

Knowledge

Linked to this lack of shared responsibility is the lack of knowledge around correct recycling procedure. People may become motivated to recycle as a household, but individually they do not necessarily know what 'good recycling' looks like.

Knowledge is patchy and there is a lack of motivation to check what is and what is not recyclable. People rarely refer to trusted information sources, such as council websites. Sharers are also reluctant to challenge each others' behaviours. Effort doesn't count for anything without the correct systems and knowledge in place.

Getting the whole household on board with recycling

To increase the status of recycling within households and to get everyone to take collective responsibility for recycling, some recommendations that local authorities, waste managers and landlords could consider are:



- Encourage sharers to associate recycling with other shared tasks (e.g. like keeping the property clean).
- Encourage sharers to consider recycling set-up when they are first moving into a property, at the same time—and with the same importance attached—that they go through other set-ups, such as bills and rent payments.
- Emphasise that there are consequences if they don't recycle well as a household
- Help facilitate the creation of recycling systems in households with low social bonds (e.g. from the landlord)
- Make the whole household feel responsible for waste and contamination of recycling bins
- Encourage social pressure around recycling
- Ensure there is a good baseline 'default' (e.g. correct bins and signage)
- Encourage residents who don't know each other to engage more on house rules/chores
- Create a sense of pride in the household and the wider community

Ensuring people know what to do and when

To ensure people have the right recycling knowledge and to encourage them to check when they are unsure, local authorities, waste managers and landlords could:



- Take advantage of existing 'moments of influence' for sharers to reflect on their recycling knowledge—for example, when people move into a new flat, when sharers change a service provider (e.g. electricity, internet), and when there's a change in the council tax rate or rent (e.g. start of the financial year)
- Clarify what good recycling looks like
- Improve guidance on items and their packaging, especially encouraging people to check what they can recycle locally
- Build and develop existing emotional perceptions of non-recyclable items as contaminating or dirty
- Increase awareness of material contamination to stop over-recycling
- Encourage people to refer to existing communications/to trusted sources of information
- Encourage sharers to challenge each other's knowledge



How Might We... improve landlord support

We identified some practical steps that can be taken to improve the behaviours of key actors in HMOs, as a starting point to implement interventions and develop tailored messages for HMO residents. Significant areas for improvement highlighted throughout the report include:

Inefficient or incorrect default waste systems

- Ensuring landlords offer a good baseline 'default' to their properties, include correct bins and clear, up-to-date signage.
- Provide HMOs with a fast track service for requesting additional capacity and replacing lost or stolen bins.

Lack of information provided to new tenants on existing recycling systems and services

- Provide standardised communications that landlords can download, amend and share around HMOs.
- Issue a recommended code of conduct for landlords, including guidelines on what containers and information to provide residents, as well as suggestions to improve tenants' waste management habits.

Poor ability to identify HMOs

- Improve the ability to identify HMO properties through partnerships with landlords through landlord forums, letting agents, student accommodation and teaching hospitals.
- Ensure contact centre staff are able to identify HMOs through conversations with residents and landlords. Ensure the centres can provide clear information on the relevant waste services.





How Might We... improve collective household behaviours

We identified some practical steps that can be taken to improve the behaviours of key actors in HMOs, as a starting point to implement interventions and develop tailored messages for HMO residents. Significant areas for improvement highlighted throughout the report include:

Lack of collective responsibility within HMO households

- Motivate residents to talk about recycling within the household, rather than it falling into the 'boring' category (e.g. encourage discussion about the system they used in their previous households or what they know from other places (i.e. work, travel); frame recycling as a 'household challenge').
- Encourage sharers to associate recycling with other shared tasks such as cleaning the property (e.g. write it into tenancy agreements).
- Carry out annual visits to check recycling systems and signage, as well as re-educating residents.

Lack of collective household goals around recycling

- Ensuring the whole household understands the importance of taking collective responsibility for waste and the potential contamination of recycling bins.
- Create a sense of pride in the household and local community, and extending this to cleanliness and waste behaviours.

Unwilling to challenge incorrect behaviours

- Encourage households to nominate a recycling champion to call out recycling errors within the household.

HMO households have high levels of contamination

- Run contamination specific social media campaigns.
- Provide myth busting information around how recycling is processed after it is collected to encourage HMO inhabitants to sort their waste properly
- Provide information to clarify what good recycling looks like.





How Might We... improve individual behaviours

We identified some practical steps that can be taken to improve the behaviours of key actors in HMOs, as a starting point to implement interventions and develop tailored messages for HMO residents. Significant areas for improvement highlighted throughout the report include:

Individuals may have poor or no relationship with other sharers

- Create an information pack specific to HMOs, including the general rules and example questions that the new tenants could ask to others to find out the details of how that property is run.
- Making contact with new tenants when they first move in, and using pre-existing move-in touchpoints to share information (i.e. key handover, Council Tax set up).

Individuals lack knowledge of recycling rules

- Improve online and printed guidance on confusing items and their packaging, especially items where OPRL advises to check locally.
- Encourage sharers to challenge each other's knowledge, and normalise this behaviour.
- Have a dedicated webpage for landlords/tenants of HMOs where they can check-in information they're not sure about.

Individuals don't rely on trusted sources of information

- Encourage people to refer to existing communications/to trusted sources of information, such as the council website, and to highlight they should keep the flyers/letters sent by the council.
- Improve and increase touchpoints with existing trustworthy information, and ensure reliable sources are valued by individuals living in HMOs.

Appendix



Appendix 1: Sample breakdown

Houses of Multiple Occupation are defined as properties that are rented out by at least three people who are not from the same household (or from the same family). These have individual bedrooms but share communal facilities, and are sometimes referred to as a house-share.

HMOs are highly varied, with no two households the same. They might have three residents, they might have 20-plus; some are flats, others houses. A single HMO could include family members, friends and strangers. In short, there is no typical HMO.

It was important that our sample captured the diverse demographics and lived experiences of those living in HMOs in London. All participants in this research

lived in multiple occupancy housing and will use kerbside recycling. We identified key groups that live in shared houses, which we focuses on covering in our sample, including students, young professionals and new migrants. We included a wide range of criteria to ensure we covered a variety of experiences A range of criteria was included such as:

- **Geography:** A spread across the 6 boroughs
- **Households:** From 3 to larger numbers, as this may impact sense of responsibility. All had kerbside recycling
- **Length of occupation:** Spread from 2 months to 10+ years, as length of occupation is may influence commitment to recycling
- **Recycling:** Individuals with a range of

attitudes and behaviours towards recycling. This sampling criteria was screened for as hidden questions amongst other questions about house chores and societal attitudes.

- **Demographics:** Including socio-economic status, occupation, gender (50:50) and ethnicity, and languages spoken (to understand how much language/culture is a barrier)

Respondents were found by professional recruiters and double screened by Revealing Reality according to the criteria agreed with Resource London.

Appendix 1: Sample breakdown

Pseudonym	Borough	Age	Occupation	Number of sharers	
Aldous	Haringey	26	Professional	4	BAME
Alice	Southwark	26	Professional	4	
Caroline	Haringey	26	Professional	4	
Chet	Brent	24	Undergraduate student	4	BAME
Ellie	Merton	23	Professional	4	BAME
Emma	Kingston upon Thames	37	Transient	3	Recent migrant
Eric	Southwark	24	Professional	4	
Erin	Kingston upon Thames	24	Professional	4	
Grace	Ealing	34	Professional	5	
Grant	Haringey	45	Professional	3	Live-in landlord, older sharer
Harriet	Haringey	28	Professional	4	BAME

Pseudonym	Borough	Age	Occupation	Number of sharers	
Jane	Haringey	23	Undergraduate student	3	
Jay	Southwark	29	Professional - baker	4	
Jake	Brent	24	Undergraduate student	4	
Joseph	Southwark	25	Professional	5	
Juliet	Lewisham	30	Postgraduate student	6	Migrant
Laura	Croydon	26	Postgraduate student	3	BAME
Marianne	Lewisham	42	Postgraduate student	6	Older sharer
Mary	Southwark	24	Professional	4	
Miles	Merton	27	Professional	3	Live-in landlord
Paul	Lewisham	33	Undergraduate student	5	
Zain	Lewisham	24	Postgraduate student	5	BAME

Appendix 2: About ethnographic research

By adopting an ethnographic approach, this research was able to examine barriers to recycling in much greater depth than has been possible with the methods used in other recycling research.

Ethnography is a form of qualitative research. A prominent characteristic of the ethnographic approach is that context is key to understanding people's behaviour. By building a strong understanding of people's home environments, relationships and life priorities, what they say and do can be placed in the context of their wider lifestyle. This makes it more possible to uncover tensions, contradictions and insight into why they behave as they do.

To gather this rich data, respondents are engaged for several hours, unlike surveys or focus groups where the interaction is

relatively short. As well as talking with respondents, ethnography includes observation—of both the environment (in this case, the waste set-up of properties and how the respondent interacted with it) and of social interactions (e.g. how the respondent and their flatmates interacted with each other).

Given this emphasis on context, analysis involved processing and comparing huge amounts of data, something that we predominantly did through discussing individual cases against analysis frameworks and noting down emerging themes before seeing how other cases map onto these same themes. In this case we mapped barriers to recycling according to whether they were personal, social or environmental barriers, and then identified which of these seemed to be the most common barriers.



Appendix 3: What makes HMOs unique? A comparison with flats and single household kerbside properties

Social

- In the Flats project, households were mainly made up of families, couples or those living alone. There was more of a sense of a family unit or a 'leader' (e.g. a parent).
- Those who lived alone could set up their own waste system and follow it without having to negotiate with other people.
- Residents in the Flats project were more likely to be aware of who took the rubbish out and when as their lives were more intertwined.
- HMOs are more likely to be made up of people who are not a family unit, and where there is not a designated leader. Their lives and routines are likely to be less intertwined, often operating on different schedules and not coming together as often as a family unit might (for instance, at dinnertime)
- In HMOs, there's often a sense of the situation being temporary, so people are more likely to put up with things they don't like. There may also be less of a sense of connection with the household or local area—in short, people are less invested.
- Residents of HMOs may be more afraid of conflict. Finding a new place to live can be hard. It may be more important to keep the peace.
- In HMOs, it may be that there is higher turnover of people moving in and out, so there are more positive influencing opportunities.
- In HMOs, there are more opportunities for interaction with a landlord, which can potentially spark conversation/consideration of recycling.

Environmental

- The HMOs we saw were often larger than the flats with communal recycling facilities. Physical space was less of a barrier.
- Kerbside recycling presented less of a challenge in terms of the distances people had to take their waste to external bins.

Personal

- Recycling knowledge was patchy across both flats and HMOs. People weren't checking their assumptions.