

The Occupational Health of Waste Pickers in Pune: KKPKP and SWaCH Members Push for Health Rights

Ujwala Samarth for KKPKP
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SWaCH (Solid Waste Collection and Handling or, officially, the SWaCH Seva Sahakari Sanstha Maryadit, Pune) is India's first wholly-owned cooperative of self-employed waste pickers/waste collectors and other urban poor. The scope of SWaCH includes collection, resource recovery, trade and waste processing. SWaCH seeks to provide decent livelihoods in the recycling industry. SWaCH is promoted by the waste pickers' union Kagad Kach Patra Kashtakari Panchayat (KKPKP). To find out more, please visit: www.swachcoop.com

WIEGO's Occupational Health and Safety (OHS) for Informal Workers research reports seek to expand the knowledge base on occupational health and safety in informal places of work. Main thematic areas include institutional issues in extending OHS services to informal workers, regulation of OHS, as well as data collection on work-related health and disease amongst the informal workforce.

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Profile: The Waste Sector and Waste Pickers

Introduction

The informal sector offers opportunities for survival to a large number of unskilled and semiskilled migrants and those long resident in the city who are excluded from employment in the formal sector. Work in this sector is usually insecure, with low earnings and carried out under conditions that pose risks to both mind and body.

Within the informal sector, waste picking has always been at the bottom of the heap in terms of social status, stigma and stability of earnings. This is the sector that provides immediate work to those who reach the city destitute and desperate—like those who came to Pune from the drought-ravaged villages of Solapur and Ahmednagar in 1972, and whose families form the majority of the waste picker community in Pune today. It is also the sector that has traditionally provided work to those that society has relegated to the bottom of the social hierarchy. Hence, when we look at the health status of waste pickers as we will do in this paper, we are not only looking at occupational health risks, we are also looking at the health of those who may have suffered generations of malnutrition, have a high-risk of injury and infection, and low (if any) access to any form of healthcare.

The Kagad Kach Patra Kashtakari Panchayat has represented Pune's waste pickers since 1993, when in a unique campaign, Pune's waste pickers came together to form a union to protect their rights as citizens and to press for further rights and reforms that would give them equal opportunities to live in dignity and to improve the quality of their lives.

Kagad Kach Patra Kashtakari Panchayat

KKPKP is a membership-based association of informal scrap collectors (waste pickers and itinerant waste buyers) in Pune, India, founded in 1993. Members earn their livelihood by collecting recyclables such as paper, plastic, metal and glass scrap from households, commercial establishments and municipal solid waste in order to sell to recyclers. It now has over 9,000 members, of whom over 80 per cent are women from socially backward and marginalized castes. More information can be found at KKPKP's website: http://www.wastepickerscollective.org/.

The Recycling Pyramid

Waste pickers are usually estimated to be one per cent of the Indian population. There are an estimated 15 lakh¹ waste pickers in India. Maharashtra State has more than three lakh waste pickers, with nearly 9,000 of them in Pune. Whereas Mumbai has about 30,000 waste pickers, of which a substantial percentage comprises children below the age of 14, in Pune, child waste pickers are now few and far between thanks to the efforts of KKPKP members who have campaigned against child labour.

The recycling sector is structured in the form of a pyramid with reprocessors perched at the apex and scrap collectors, called waste pickers, at the base engaging in "free" collection of scrap from municipal garbage bins and dumps, along the roadsides, and outside houses in neighbourhoods.

Marginally above waste pickers are itinerant buyers (mostly men, called *bhangarwalas*, and a smaller percentage of women, called *dabba-batliwalis*) who purchase small quantities of scrap from households. All categories of scrap collectors rudimentarily sort the collected scrap commodities to sell to retail scrap establishments by weight or unit for onward trade and processing. It is this manual sorting process, in which waste pickers pick through mixed waste, often without any form of protection, which poses perhaps the greatest health risks.

Scrap collectors in Pune are almost exclusively Dalits, the erstwhile "untouchable" castes—more specifically the Mahar (including Mahars who have converted to Buddhism after 1956 and are now called Neo-Buddhists) and the Matang castes. These workers rank the lowest within the urban occupational hierarchy even within the informal sector. The total population of such workers in Pune is estimated to be over 9,000, of which waste pickers constitute 66 per cent and itinerant buyers 34 per cent. The proportion of women in the waste picking sector is 73 per cent. That the occupation is mediated by caste and gender is evident from the above.

¹ A lakh is a unit of measure equal to 100,000.



SWaCH: A Cooperative of Waste Pickers

SWaCH (Solid Waste Collection and Handling or, officially, the SWaCH Seva Sahakari Sanstha Maryadit, Pune) is India's first wholly-owned cooperative of self-employed waste pickers/waste collectors and other urban poor. SWaCH was established in 2009 for a number of purposes, but the overarching objective was the welfare of waste pickers. It is an autonomous enterprise that provides front-end waste management services to the citizens of Pune. SWaCH is authorized by the Pune Municipal Corporation (PMC) to provide door-to-door waste collection (DTDC) and other allied waste management services. The scope of SWaCH includes collection, resource recovery, trade and waste processing. SWaCH seeks to provide decent livelihoods in the recycling industry. Through its 2,150 members, SWaCH services over 390,000 households. More information can be found at http://www.SWaCHcoop.com/.

Since the establishment of SWaCH, a waste pickers' cooperative created by KKPKP in 2009, there are now over 3,000 former waste pickers working as door-to-door waste collectors (DTDC) in Pune.

As we will see in this paper, waste pickers and waste collectors (i.e., the SWaCH DTDC workers), work in very different conditions—therefore, while there are health risks that are shared by all waste workers, there are also some that are unique to the particular type of work done. While there is insufficient data to say with conviction that those who work as SWaCH waste collectors face less health risks than those who pick waste along the roads, suffice to say that the health risks the two groups face are somewhat different, requiring somewhat different interventions.

Waste Picker Profile

- 90% of waste pickers are women
- 50% are under 35 years of age
- 25% are widowed or deserted
- 30% are in women-headed households
- 90% of the women are illiterate
- 8% are sole earners
- 45% contribute to more than 50% of household income
- almost all waste pickers are from the erstwhile "untouchable castes" also referred to as
 Scheduled Castes

- 50% started their work life in this sector
- most waste pickers source domestic waste

Conditions of Work for Waste Pickers

- 75% walk for more than five hours-many walk up to 10 km a day with loads of up to 40 kgs
- 50% work 9-12 hours daily with average daily earning is Rs 60
- all manually handle garbage
- 30% have been bitten by dogs
- other common problems include:
 - harassment
 - insecure earnings
 - no legal protection
 - no social security
 - unfair practices by traders
 - vulnerability to skin, gastro-intestinal and musculo-skeletal ailments

Waste Picking as Work

One of the first challenges facing KKPKP, or rather facing the core group that worked towards establishing the Union, was establishing waste picking as "work" not only in the eyes of the government and society at large, but even in the eyes of the waste pickers themselves, who tended to dismiss their own back-breaking labour as non-essential to anyone but themselves.

KKPKP was founded on the premise that scrap collectors were unrecognized workers contributing to resource recovery, cost-saving for the municipalities, and environmental protection. The premise was substantiated by first estimating (on the basis of data generated by a cooperative scrap store run by the Union) and later quantifying through formal research the contribution of waste pickers in the management of urban solid waste.



A formal study commissioned by the International Labour Organization and undertaken by a team of researchers from the SNDT Women's University in 2000-2001 found that, collectively, scrap collectors salvaged 144 tons of recyclable scrap prior to its transportation, thereby saving the Pune and Pimpri Chinchwad Municipal Corporations about Rs 16 million per annum in transportation costs alone. By implication, each waste picker contributed Rs 246 worth of unpaid labour per month to the municipality. The study also found that the annual contribution of the scrap trade to the total income generated in Pune was about Rs 185 million (Chikarmane et al. 2001). Further, there were the vital and difficult to quantify environmental benefits derived from the reduction of load on the landfills (since the waste pickers salvage the recyclables prior to its transportation) and the reduction of stress on our natural resource base by the recycling of paper, plastic, glass, metal, etc.

This quantification of the contribution of waste pickers in Pune firmly established the role of the waste picker in the city's economy. The study also established that the waste picker often chooses to work within this sector for the higher than minimum wage earnings, flexibility, and independence that it offers despite the terrible physical conditions of work. She works creatively and painstakingly within a sector that has traditionally been shunned by all. Ironically, now that the monetary value of waste has suddenly become clear to many, these same waste pickers are under threat of being shunted out of the very sector they had claimed as their own in which they had created a niche and learnt to negotiate the market. Now, they are threatened by vested interests (mega-recycling plants, waste-to-energy plants, and commercial operators with strong political backing).

Quantifying the contribution of waste pickers to the city also paved the way for a change in the health status of waste pickers. KKPKP now pushed the Pune municipality to recognize the waste pickers as workers and campaigned for their access to health insurance. KKPKP managed to convince the PMC of the justness of their claims and, in a first of its kind decision, the PMC launched a health insurance scheme for waste pickers.

What Waste Pickers Do

Waste pickers retrieve paper, plastic, metal and glass scrap from garbage. Those working with SWaCH also help to send wet waste to the city's composting plants. Waste pickers sort, categorize, bundle and transport these recyclable items to the scrap dealers for sale who, in turn, feed the items to the higher levels of the recycling industry. This daily salvaging of recyclables is what sustains even the door-to-door collectors who, as members of SWaCH, get paid by the households they collect waste from every day. As mentioned earlier, many waste pickers value the freedom, relative flexibility of timings, and lack of "someone sitting on (our) heads" of waste picking work—in other

words, not all waste pickers would automatically jump out of the sector given the chance of a more regular or "cleaner" job. But it remains the conditions in which they have to search for recyclables or sort waste that has a direct impact on the health of both waste pickers and waste collectors.

According to the Maharashtra Non-biodegradable Garbage Control Act 2006, waste generators must segregate waste into wet and dry (biodegradable/non-biodegradable). The wet waste is then taken away by the municipal trucks for composting while the dry waste is put in the containers–either by SWaCH workers or by citizens themselves–for separate collection. Hence, on paper, neither the door-to-door waste collector nor the waste picker searching for recyclables in containers should actually have to deal with the nauseating filth of unsegregated waste. The reality is, however, very different.

Talk to any waste picker in Pune, and she will sooner or later talk about the bane of her life: unsegregated waste. With low waste segregation in Pune, both waste pickers and door-to-door waste collectors have to sort through the sickening filth of mixed waste on a daily basis—the former while looking for recyclable material to trade, the latter because the municipal trucks refuse to take away mixed waste, insisting on "pure" wet waste with no non-biodegradable material in it.

Occupational Health and Safety Issues

Risks and Hazards in Everyday Waste Picking

The risks faced by workers in the waste sector go beyond the expected risks of infection and communicable diseases. Cuts and wounds, animal bites, chemical burns and inhalation of toxic gases, falls and traffic accidents, musculo-skeletal problems, sexual violence and mental trauma are all part of a waste picker's daily burden. As an article in the GTZ Fact Sheet on Environment and Climate Change says:

The working environment of waste pickers is very critical because it combines unhygienic context and risks of accidents. Additional dangers for the informal sector appear because their living and working environments usually overlap. Sometimes children and adults even look for food among the wastes because they cannot afford to buy it. Some studies detected that important morbidities among street sweepers are chronic bronchitis, asthma, anaemia and conjunctivitis, probably because exposure to dust and particulate material, undernourishment and contact with infectious media (GTZ: 2).



Toxic Waste

The frightening aspect about working with waste in countries where the regulations and norms for waste disposal are yet to be strictly enforced is that waste pickers often have no idea just how dangerous the materials they are sorting through may be. When repeated on a regular basis, the exposure to even small amounts of toxic materials combined with poor general health can have disastrous cumulative results. For example, informal waste pickers at the dumpsite of Managua in Nicaragua were found to be exposed to very high concentrations of pollutants: the blood analysis of children between 11 and 15 years old evidenced the presence of high traces of polybrominated diphenyl ethers (a chemical flame retardant), heavy metals, pesticides and PCB. The presence of these compounds can be attributed to direct contact with the contaminants, inhalation of contaminated particulate material and dust, and consumption of polluted food. The health risks of those children who have always lived and worked in the dumpsite were especially high due to prenatal and postnatal accumulation of toxic substances. Similarly, a 2003 survey by CHINTAN, New Delhi, found that five per cent of respondents had handled medical waste, and 16 per cent of the men and six per cent of the children stated that they had picked up thermometers containing mercury and could recall handling or dealing with mercury.

Musculo-Skeletal and Mental Stress

The physical stress of waste picking is heavy: waking early and going to sleep late; long distances walked–often with a heavy sack or pushing a cart over uneven roads or uphill; climbing multiple flights of stairs; and working in all types of weather without leave, etc. This physical stress is accompanied by an almost equal mental stress: worries about children left behind; anxiety about finishing this work and getting on to the domestic chores; anxiety about harassment by police; abusive husbands/fathers; fear of sexual predators; conflict with citizens or other waste pickers; and fear of accidents/attacks by dogs and other animals, etc. In recent interviews, waste pickers also mentioned the tension of missing the collection truck as a major source of daily stress.

Dealing with unsegregated waste plays a determining role in eroding waste pickers' health. Unsegregated waste is the stuff of nightmares—a revolting melange of food and kitchen waste, paper, plastic, broken glass (especially light bulbs/tubes, crockery), used condoms, soiled diapers and sanitary towels, hospital/ medical waste, e-waste, leftover chemicals and cleaning agents, etc. Many of the physical and mental health issues mentioned in this paper stem from having to smell, see and handle this ghastly mess every day. As more than one waste picker mentioned while being interviewed for a recent study, "It can give you a headache, make your stomach churn, put you off your food...And when you don't feed your tired body at the end of the day, you get weak and can't work the next day" (Inclusive Cities 2012). Soiled diapers and sanitary towels were considered the

most nauseating items they had to handle. Ironically, while the waste pickers who sort through garbage in the containers and dumps can avoid handling the soiled diapers and sanitary towels, the seemingly "better-off" SWaCH workers cannot. Citizens usually just hand over unsegregated waste, often not even in dustbins but in tightly-tied plastic bags. This means that during the sorting stage, the waste collectors have to manually untie the bags from each household, manually empty out the contents, manually segregate the compostable/non-compostable items, etc. Despite the gloves and masks that most SWaCH workers are given, it is a difficult, dangerous and nauseating job to do. In the rainy season, for all categories of waste workers, the situation is compounded as the waste becomes one stinking, soggy mess.

On dumpsites and in some roadside bins, fires are either lit to reduce the volume of materials or occur spontaneously because of the presence of methane and other gases. These can be hazardous in terms of burns and smoke inhalation, and gradually over time they cause severe damage to the respiratory tract system. If the waste picker jumps into a container that still has fire smouldering at the bottom of the pile, burns will result. Also, since the rules pertaining to waste prohibit the municipal workers from collecting thermocol, and since this has such low resale value that no one wants to collect it, citizens often dump it in the containers and set fire to it, releasing noxious gases.

During the rainy season, apart from having to work in the rain with minimal protection, waste pickers are prone to infections from fecal material that is washed into domestic waste. Most SWaCH workers are given protective gear like raincoats and footwear, but in the end, many remove the gloves and footwear since it is difficult to manipulate waste in the sorting process with the bulky gloves, and in some buildings, they are not allowed in wearing muddy shoes.

Compounding all these work situation-related risk factors is the domestic situation to which the waste pickers return at the end of a day spent working in hazardous conditions. Waste pickers often live in informal settlements/slums that are not serviced by local municipalities. Their houses are usually one room tenements in crowded *vastis*, often with tin sheet roofs. While water provision seems to have been taken care of by and large, issues of toilets, privacy, a safe and calm environment, and air circulation loom large. Many waste pickers are women who are the sole earners in the family, and anecdotal evidence suggests that alcoholism and unemployment amongst the men is high. The women are, therefore, often doubly exposed to environmental hazards and mental stress, both at work and at home.



Health Status of Waste Pickers in Pune

KKPKP aims to not just protect and fight for waste pickers' livelihood rights, but also to work towards improving the quality of waste pickers' lives—therefore, ensuring the better health status of waste pickers has been a key objective of the union from the outset.

In 2009-2010, KKPKP conducted a survey where trained *karyakartas* (union activists who function as the link between the individual members and the organization, mobilizing members and also conveying to them decisions taken on their behalf, or that need to be taken, etc.) collected data from 1,777 randomly selected women waste pickers in Pune. A tool was designed that addressed specific systems (without covering all systems, which would have made the tool extremely lengthy and possibly unmanageable) that may be affected by the waste picker's occupation. Questions in each system were shortlisted and approved by consulting doctors. Current and chronicity was considered necessary to be demarcated. Also, association with demographic characteristics and substance abuse was thought necessary to be collected. The study found:

- In reference to tuberculosis and asthma that could be related to occupational exposure (pollutants in the environment and exposure to possible TB bacteria), the prevalence of specific symptoms related to asthma, namely wheezing, was high at 10 per cent, and a high morbidity index of TB was seen in 6.4 per cent of the respondents.
- In the case of the gastro-intestinal tract (GIT), symptoms suggestive of acid peptic disease were about 10 per cent, and specific symptoms related to GIT were considered for morbidity index, which ranged from 10 to 15 per cent in both acute and chronic reporting. This also could possibly be attributed do the unhygienic conditions in which waste pickers operate.
- Another occupation-affected system that showed maximum morbidity was the musculoskeletal system with nearly 50 per cent showing morbidity in four specific symptoms related to the overall system. Carrying of heavy loads, climbing in and out of containers and garbage dumps, walking long distances, and low nutrition all contributed to the prevalence of these symptoms.
- In reference to reproductive tract infection-related symptoms, 12 to 15 per cent had one symptom related to the reproductive tract. Also, overall one third of the respondents had at least one complaint related to menstruation. It was found that when the *karyakartas* asking the questions were female, the RTI-related symptoms were reported more.

• Among the chronic symptoms of various systems assessed more than 70 per cent of women had chronic musculo-skeletal symptoms; 30 per cent had symptoms related to menstruation; 25 per cent had GIT symptoms, and 10 per cent had RTI/STI symptoms. Interestingly, nearly 11 per cent gave a history of chronic RTI/STI symptoms. This may be due to the fact that these women are generally undernourished and more prone for infection including RTI/STI and possibly because they do not have access to bathrooms, which could affect their genital hygiene, leading to infections-in fact, lack of access to toilets/water for washing right through the day is a major occupational health concern for waste pickers.

Data on the health of door-to-door waste collectors of SWaCH was recorded for a period of one year. SWaCH works in two cities–Pune and PimpriChinchwad, a neighbouring urban area. The *modus operandi* for collection differs between the Pune Municipal Corporation area and the Pimpri Chinchwad Municipal Corporation area. Non-motorized push carts are used in Pune while a motorized system operates in Pimpri Chinchwad. It was found that there were specific risks associated with each stage of the door-to-door collection process. For the sake of analysis, the members' ailments were divided into three broad categories: injuries, diseases and physical stresses.

Injuries were caused by accidents and their cause was easily identified. Diseases included diseases, infections and other physical problems that could be diagnosed and given a name. Stresses were aches and pains that members suffered, largely due to the conditions or demands of their work. For instance, carrying waste on the head often led to pain at the top of the spinal cord in the neck and back; exposure to rotting waste caused vomiting and dizziness; regularly going up and down stairs in high rise apartment complexes caused pain in the knees.

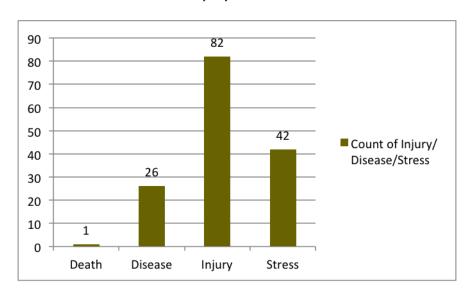
This study aimed to pinpoint the Point of Injury/Stress/Disease in order to make it easier to take remedial measures to avoid or at least minimize these in the future.

Table 1Types of Ailments Affecting Members

Injury/Disease/Stress	Female	Male	Total
Death	1		1
Disease	21	2	23
Injury	66	11	77
Injury and disease	1		1
Injury and stress	4		4
Stress	35	1	36
Stress and disease	2		2
(blank)	2		2
Total	132	14	146

N=2039

Figure 1
Count of Injury/Disease/Stress



N=2039

While it was difficult to pinpoint the Points of Disease, the study did manage to point out the Points of Injury and Points of Stress.

Injuries

It was found that members were susceptible to different types of injury and stress at different points of the waste collection process.

Segregation and push carts

The two most hazardous sub-processes within the collection process were found to be those of segregation of waste (15 injuries) and that of pushing the push cart (11 injuries). Despite several efforts by SWaCH to reduce the risk to members by providing gloves, masks, footwear, jackets, carts and implements, segregation of waste into wet and dry remains a hazardous task, largely due to citizens' lack of cooperation in source segregation. The design of the push carts has evolved with some feedback from waste pickers, but it is still a heavy vehicle, difficult to manoeuvre on uneven roads and slopes.

Transfer of waste

The transfer to the Secondary Collection Container/Vehicle was also fairly hazardous. The study found that seven members had recently received injuries during the secondary transfer process, i.e. while transferring waste from their buckets (about 3.5 feet high in size, sometimes made of metal) onto the municipal garbage container or onto the secondary collection trucks or tractors. The buckets that they lift are often very heavy, and these slip and fall on the members' feet. In one instance, the bucket broke and the entire bucket with its load fell on the waste pickers—one suffered several injuries as the bucket fell on her body while the other injured his foot seriously and had to spend one month away from work to recover from the injury.

Members also often have to climb on top of tractors. While their partners lift the load from below, the waste pickers who have climbed to the tractor's top have to catch the bucket and empty its contents on top of the truck while standing on the heap of garbage already loaded onto the tractor. This load sometimes contains sharp objects that injure members and is slippery and unstable.

Stress

The largest number of physical stress cases was reported by members from pushing their push carts. The table below summarizes the data on points at which members feel physical stress or processes which cause physical stress.



Table 2Physical Stresses Reported in DTDC Process

Sub-process within the DTDC process	Number of members who report suffering from some physical stress due to this process or factor
While collecting waste	1
Pushing cart	16
Pushing cart on steep slopes	2
While collecting apartment society waste	5
Dealing with smell of apartment society waste	3
Lifting waste on head	2
Total	29

N = 2039

Out of 29 members, 18 members reported suffering from stress during the process of pushing the push carts. Eight members reported having been stressed while collecting waste in multi-storied apartments, either because they have to go up and down stairs or because they have to deal with large quantities of often rotting and stinking waste.

Injuries and Accidents

SWaCH has also found that mere mechanization of work does not necessarily reduce the health risks to waste pickers. When SWaCH was contracted by the PCMC to provide waste management services, funding was raised for mechanized transport–small trucks–for the waste pickers. Since April 2011, an injury database for this mechanized transport waste collection has been maintained. Injury data were collected over the eight month period of April - November 2011. Thirty-one workers reported injuries during this period. All the reported injuries were to waste pickers themselves as opposed to the drivers of the trucks or to supervisors. Assuming that the number of cooperative members remained constant over the data collection period, the figure of 31 injured workers out of 350 workers represents an injury rate of approximately nine per cent or 90/1000 for the PCMC SWaCH cooperative. This is high compared to the national injury rates for industrial workers in India, which was estimated at 9/1000 in 2002 (SWaCH/ Pimpri Chinchwad Municipal Corporation 2001).

Over the whole work process, hand injuries were the most prevalent type of injury, followed by injuries to the legs and knees. Injuries to the upper torso and head also occurred (table 3).

Breaking down the data for each work process shows that the greatest number of injuries to waste pickers happened during the sorting process, which occurs on both the trucks and in the municipal waste containers. Most of these injuries were to the hands (five out of eleven) and mainly from contact with broken glass.

Injuries were also proportionately high in the transfer processes. Many of these injuries were a result of contact with heavy machinery: the hydraulic jammer and the compactor. Here, the injuries were musculo-skeletal, involving the jamming or crushing of body parts in the machinery. In two cases, workers were hit on the chest and back by the compactor and required relatively expensive medical treatment.

Table 3Injuries During the SWaCH Work Process

Work process during which injury happened		Hand	Leg	Chest	Head	Knee	No spec.
Collection	2	1					1
Sorting	11	5	1		1	2	2
Transfer	7	3		2		1	1
Not specified	11	7	2				2
TOTAL	31	16	3	2	1	3	6

Overall, the most prevalent types of injury were cuts and abrasions (**table 4**). These occurred most often on the hands, which corresponds with the fact that many of the hand injuries were related to contact with broken glass. Musculo-skeletal injuries involving jamming or crushing of hands and fingers followed. One worker had been bitten by a dog during collection.

Table 4
Injury Type

Injury type		Hand	Leg	Chest	Head	Knee	No spec.
Cut/abrasion	13	9	1		1		
Musculo-skeletal	6	3	1	2			1
Dog bites	1						1
Type not specified	11	4	1			3	4
TOTAL	31	16	3	2	1	3	6

The data analyzed in this study was from a small sample, making it difficult to draw any general conclusions from it. Nevertheless, the data gives some indication of the high injury rates suffered by waste pickers while at work—this data set showed that SWaCH waste pickers suffered an injury rate 10 times higher than the estimated rate for industrial workers in India.

Interventions

Health Insurance, Trust Hospitals and Advocacy

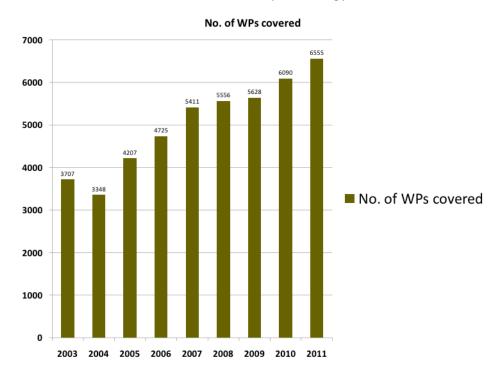
Both KKPKP and SWaCH have made proactive interventions, in consultation with the waste pickers, to help to improve waste pickers' health status. While the most publicized intervention has been the health insurance provided by the PMC to every registered waste picker in Pune (a first for the country), more everyday issues like nutrition, sexuality, reproductive health, and occupational safety are discussed either in the regular meetings or at specially organized health camps and workshops. Occupational health issues—particularly in the case of SWaCH workers—have gone beyond acquiring safety equipment such as gloves, footwear, push carts, and setting up sorting sheds to actually dialoguing with the waste collectors and redesigning equipment, amenities, and social security in such a way that it would better serve its purpose. Some of these interventions are described below.

Jan Arogya Insurance Scheme

Kagad Kach Patra Kashtakari Panchayat (KKPKP) has been the holder of Jan Arogya Group Insurance Policy (JAP) of New India Assurance Company (NIA) since January 2003. The premium for the policy is paid by the Pune Municipal Corporation from its annual budget. The main features of the policy are as follows:

- sum assured is Rs 5000 per annum per member
- eligibility is 18-70 years
- no medical check up required
- premium slabs based on age of insured person, age certification not required
- treatment admissible in registered private and public hospitals/hospital with more than 15 beds and qualified staff
- policy covers hospitalization not out-patient care
- minimum 24 hours in hospital with exceptions for chemotherapy, dental operations, renal dialysis, etc., which will be covered even if it is less than 24 hours

Figure 2
Number of Waste Pickers Covered by Jan Arogya Health Insurance



Two drawbacks to the scheme have been noted: since there is no formal agreement between the insurer and the providing hospitals, hiking up the price for hospitalization occurs (e.g., when hospitals are asked for bills for submission to the insurer, they hike up the charges). Also, in its present arrangement, the programme does not allow for schematic or programmatic modifications based on community feedback.

Most of the claims show a higher percentage of cases of gastroenteritis, cholera, typhoid, worm infestations, diarrhoea, dysentery and food poisoning. The next category of claims were from the orthopaedic ward, indicating accident cases. These accidents are mostly due to accidental falls, traffic accidents and incidents of domestic violence.

Most of the claims were for hospitalization due to communicable diseases, and these were much higher than the natural average. Out of 64 total claims, 43 were related to cases of gastroenteritis, enteric fever and chikagunya – about 67.18 per cent of all diseases reported for claims.

From 2003 to January 2007, claim settlement under the insurance scheme was relatively smooth and differences were settled through discussion. Clauses pertaining to delayed intimation and delayed submission of claims were not enforced, and likewise, KKPKP did not claim interest when claim settlements were delayed. The premium to be paid was increased for 2008 on the grounds



of adverse claim ratio. The Pune Municipal Commissioner authorized payment of the increased premium (in order not to penalize the waste pickers). From January 2007 onwards, claims were being repudiated, citing delayed intimation and submission. In 2007, 61 such claims were rejected. KKPKP then made consistent efforts to resolve the issue through the grievance mechanisms of the company, but unfortunately there was no response—the grievance was not even acknowledged. After all else failed to draw the company's attention, over 300 waste pickers staged a *morcha* outside the NIA office on Moledina Road. When NIA officials in Mumbai read about it in the newspapers, they directed the manager in Pune to initiate dialogue with KKPKP and resolve all existing matters. Finally, two months later, all the claims were settled in the presence of KKPKP waste pickers and staff.

Over the last two years, KKPKP has strengthened the insurance systems considerably. Claim intimations are now sent online. Intimations mostly come in within 7 days and submissions within 30 days. Women are more aware of the rules of the policy and *karyakartas* report injuries and sickness to the office. In 2010, claim processing has been smooth. However, a new problem has crept in: women are now being refunded only a part of their claim amount. NIA has cited "exorbitant and unnecessary medicines prescribed by doctors" as the reason it does not reimburse the entire amount. KKPKP has registered its opposition to this since there is no reason why the burden of doctors' malpractice should fall on poor waste pickers. KKPKP is also now lobbying for higher healthcare coverage as currently the JAP policy allows for only Rs 5000 worth of medical expenditure in a year, but the spiraling costs of healthcare necessitate a change in this amount.

Equipment and Safety Interventions

SWaCH has worked with both Tata Motors and students from MIT design school in Pune to redesign some of the equipment used by waste collectors–specifically the push carts, *aakdis* (spear/sticks used to poke and pick up waste) and sacks. The carts were redesigned by the students in a collaborative process with waste pickers, aiming for ease of manipulation and multipurpose use (to carry not only waste, but different types of waste as well as the waste pickers' personal effects like water bottles, clothes, *tiffin*, etc.). The sacks and *aakdis* were redesigned in a way to put less stress on the waste pickers' backs. The organization has also spent some time getting feedback from waste pickers on different types of gloves because it was found that many waste pickers were, in fact, not using the ones they were given. This was surprising because statistics show that four in every five waste pickers has pricked her finger with an unsterile needle, got cut by glass/metal or burnt with acidic substances while picking waste. This means that at any point of time, 80 per cent of waste pickers are at continuous risk of infecting themselves or suffering abrasions/cuts while sorting through garbage. Although masks are issued, many waste

pickers prefer to use their scarves, rather than the mask, which they find uncomfortable and embarrassing. Raincoats have also been issued by the PMC after data of illness related to getting drenched in the rain was presented.

Sorting Sheds

Although not a direct "health" intervention, the provision of sorting sheds—dedicated spaces where waste pickers can do their sorting work in a safe and screened environment—has had positive effects on women's health. In the few localities in the city where this provision has been made, it has been found that the women store their *tiffins* in the shed and meet there to eat together after washing their hands, which leads to sharing of food, more variety in their diets, calmer and slower eating and better nutrition.

Trust Hospitals

KKPKP believes in using advocacy to ensure that their members get the benefit of schemes that have been put into place for disadvantaged/poor citizens and to ensure that these schemes are not misused. One such scheme is the Trust Hospitals scheme, under which the hospitals of public charitable trusts are required to reserve 10 per cent of their beds for Below the Poverty Line (BPL)/ Economically Weaker Section (EWS) patients; they are also required to have an Indigent Patient Fund (IPF), constituting 2 per cent of their annual turnover, and to use this fund to provide free treatment to BPL patients and 50 per cent concession to EWS patients. KKPKP has had to use a range of measures from filing Right to Information (RTI) applications to agitating outside non-cooperative hospitals in order to ensure that deserving patients get what is due to them by law.

Hospitals are typically reluctant to treat BPL/EWS patients who are aware of the government ruling about free/concessional treatment. The hospitals have been known to use various excuses and ploys to shirk their responsibility towards patients who cannot afford the full costs of healthcare. KKPKP *karyakartas*/members have faced these and other typical situations:

- Hospital says that there are no free beds; all beds are occupied. The *karyakartas* have got
 past this by demanding to see the bed roster of the general ward.
- Hospital says that the IPF is exhausted. In one case, discussed in the case study below, this
 obstacle magically disappeared when KKPKP activists demanded that the hospital give
 this in writing.
- Hospital insists on ration cards/income certificate and will not accept any other
 documentation proving BPL status even if this is a government document such as a
 municipal roster. When ration cards are produced, there have been cases where the



hospital has said that the card was old and demanded more recent proof, such as an income certificate. The problem here is that income certificates are notoriously difficult to come by, and the government official/clerk usually needs to be bribed, coerced and cajoled into producing the required certificate.

• Hospitals grant the free bed, but then insist that the patient buy the medicine and have the tests done from outside, requiring cash expenditure. In cases of death of the patient, hospitals refuse to release the body unless the dues are paid up. In one recent case involving a well-known trust hospital, the bill amounted to about Rs 70,000, and the distraught family was not in the mood to listen to the pleas of KKPKP *karyakartas* not to give in to blackmail from the hospital. The family paid almost Rs 35,000 in order to get the body of its family member released.

However, with the active involvement of *karyakartas*, support groups like the Rugna Hakk Samiti (RHS), and union members who are now increasingly aware of their rights, there has been some success in securing the rights of union members and their families. For example, Rugna Hakk Samiti managed to get prostheses worth almost Rs 1.5 lakh donated free to a waste picker by the Dinanath Mangeshkar Hospital by reiterating to the hospital the government ruling regarding charitable trust hospitals. Through the interventions of KKPKP and RHS, some members have also managed to later recover the dues that they paid under duress to the hospital.

Sunita Anil Devkule: Fighting for her Son's Rights

Sunita Devkule's son (Ganesh) was taken to Ruby Hall Hospital in 1997. An operation was conducted as he was diagnosed with a coledochal cyst with ascending colangitis, with a micro liver abscess. He was 12 years old then and was under the treatment of a paediatrician. Ganesh was in the hospital for about 40 days. The expenses went up to Rs 2 lakh. About 10 years later, he again developed complaints of cold, fever, and vomiting. When taken to the hospital, and after sonography, he was diagnosed with an infection at the site of the operation, which had become septic. Doctors advised medication. He was discharged 10 days later after free treatment.

In May 2008, Ganesh was again admitted for fever, cold, and vomiting. This time, he was told he had developed an infection in the GI tract and the medicines prescribed amounted to over Rs 15,000. A year later, Ganesh was again admitted with the same symptoms. The total billing was Rs 40,000. When Sunita showed the hospital authorities her yellow ration card, which entitled her to free care, they refused to acknowledge it.

A month later Ganesh required hospitalization again, and this time the doctors said that he would need to be operated upon and that they would not do it for free. Sunita showed them a copy of the Bombay High Court Ruling, but they rubbished it. At this point, both Sunita and KKPKP activists intervened. Sunita sat at the gate of the hospital and refused to take her son home. KKPKP activists reached the hospital and spoke to the social worker. When she claimed that their IPF fund had been exhausted, the activists asked her to give this to them in writing. This shook up the hospital authorities, and they finally treated Ganesh for free.

The case illustrates Sunita's grit and determination and her willingness to see this through till the end. Very often patients (understandably) get fed up by insensitive hospital authorities and lose the will to fight the system. Sunita persisted despite incredible odds. It is women like her who inspire KKPKP's ongoing advocacy efforts.

However, with profit increasingly replacing healthcare as the *raison d'etre* even of charitable trust hospitals, hospitals are now finding a way out of their responsibilities to the weaker sections of society: as the Aditya Birla Memorial Hospital has done in Pune, they simply register themselves as companies and not as charitable trust hospitals. So while the parent Trust continues to receive government concessions as a public charity, the hospital is free to pursue unbridled profit.

Health Awareness Generation

While health awareness generation is an ongoing programme, the following activities in this area of work were carried out in 2009:

• In the year 2009 - 2010, the Indian Red Cross Society held three camps on HIV awareness in Patil Estate, Nana Peth and Patra Chawl-all were well-attended by the women.



- Representatives of Mukta HIV/AIDS helpline who were keen on doing preventive health advocacy for HIV with SWaCH and KKPKP women visited Taljai and conducted a onehour session on HIV awareness.
- During the Swine Flu epidemic, Aargoya Sena helped spread awareness about prevention and treatment of Swine Flu. Soaps were distributed to nearly 3,000 waste pickers along with instructions on washing hands, covering the face with a cloth, and the names of screening centres they should report to in case of symptoms of the flu.
- Two students from SNDT Mumbai conducted sessions for women in Bal Tarun and Kishkindnagar about nutrition and anaemia.
- Discussions on anaemia, vitamins and proteins were carried out in three *vastis* over 12 sessions—these were conducted by IHMP (Institute of Health Management, Pachod).
- At KKPKP, information pamphlets were printed to increase awareness regarding the health insurance and trust hospital schemes so that maximum number of people access these benefits.

Empanelment of Doctors

Since many poor people are cheated by unethical doctors and quacks who resort to over-medication, suggest unnecessary and expensive treatment etc., KKPKP thought that it would be a good idea to have a panel of doctors who would be available to treat waste pickers, when required. This list would give locality-wise details of doctors that the waste pickers could approach, without fear of being cheated. Knowing that these doctors were on the Union's list would also make the waste pickers bold enough to approach a doctor whose clinic was not in their slum or immediate neighbourhood.

From November 2009 - August 2010, KKPKP contacted over 1,200 doctors and requested them to come onto the panel of doctors. The names and addresses of these doctors were obtained from an Indian Medical Association book. The doctors were sent letters explaining the purpose of empanelment and what was expected of them. Over the next few months, 54 doctors responded.

The main problem with empanelment lay in the fact that it was very tough to break the entrenched health-seeking behaviour patterns of waste pickers. Most waste pickers seek medical intervention from a local neighbourhood doctor, reducing time and travel costs, but who, in most cases, is not qualified to be practicing allopathic medicine. These "doctors" engage in various forms of malpractice, ranging from giving unnecessary injections to treating every problem with a "magical" saline bottle. Injections and saline bottles have a temporary effect, which encourages

waste pickers to go back to the doctor the next day. It was very difficult to compete with these practices as most empanelled doctors were MD doctors who didn't practice in a low-income neighbourhood (hence an increase in time and travel) and rarely gave over-the-counter medication to their patients. In addition, even though consultation charges were reduced, MD doctors would prescribe medications that needed to be bought from outside. Hence, the costs of this type of medical care could not compete with the costs of visiting a local (often unqualified) doctor.

This effort towards empanelment has been given up as the organization has realized that the process of empanelment is not sustainable and that changing health-seeking behaviour is a long and arduous task. It is considered more worthwhile to focus time, energy and resources in building up existing resources and working strongly on advocacy to demand accountability from already existing services and infrastructure.



Bibliography

Ahmed, Dr. S. I. 2011. *Kagad Kach Patra Kashtkari Panchayat Health Insurance Scheme Casestudy*. Centre for Insurance and Risk Management for the ILO. Available at: http://www.ifmr.co.in/wp-content/uploads/2011/03/CIRM_Kagadkachpatrakashtkaripanchayat.pdf (accessed May 9 2014).

Chikarmane, P., M. Deshpande, and L. Narayan. 2001. Report on Scrap Collectors, Scrap Traders and Recycling Enterprises in Pune. Geneva: ILO-UNDP.

Chikarmane, P. and L. Narayan. 2005. *Organising the Unorganised–A Case Study of the Kagad Kach Patra Kashtakari Panchayat*. Mimeo/SNDT Women's University: Pune.

Chintan Environmental Research and Action Group, 2003. Wasting Away - A Study of Health Status of Wastepickers in Delhi. Chintan Environmental Research and Action Group, Delhi.

GTZ Fact sheet. Wastes and Health–Health risks related to Solid Waste Management. Deutsche Gesellschaft für Technische Zusammenarbeit.

Inclusive Cities Project. 2012. Qualitative Data collected for *The Informal Economy Monitoring Study*. See *Waste Picking Sector Report* and other reports from the study available at: http://www.inclusivecities.org/iems.

Kagad Kach Patra Kashtakari Panchayat (KKPKP). 2009 - 2010. *Health Status of Waste Pickers in Pune*. KKPKP: Pune.

SWaCH. 2011. OHS Report. Internal document.

SWaCH/ Pimpri Chinchwad Municipal Corporation (PCMC). April - November 2011. *Injury Data*. Internal document.



About WIEGO: Women in Informal Employment: Globalizing and Organizing is a global research-policy-action network that seeks to improve the status of the working poor, especially women, in the informal economy. WIEGO builds alliances with, and draws its membership from, three constituencies: membership-based organizations of informal workers, researchers and statisticians working on the informal economy, and professionals from development agencies interested in the informal economy. WIEGO pursues its objectives by helping to build and strengthen networks of informal worker organizations; undertaking policy analysis, statistical research and data analysis on the informal economy; providing policy advice and convening policy dialogues on the informal economy; and documenting and disseminating good practice in support of the informal workforce. For more information visit: www.wiego.org.