

Working the bins in Italy

The unforgettable sight of Naples' streets littered with rubbish bags was an apocalyptic image that shows how vital the clean-up jobs (refuse collectors, street sweepers) are to keep the town running. The challenge of keeping our streets clean is largely under-funded. Recent research in Italy has uncovered serious health problems related to workloads.

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Our consumption-crazed societies generate untold amounts of waste. Without workers to deal with it, towns would grind to a halt.

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"Refuse collection in today's Italy is a harder job than before: as well as the loads to lift, the dirt, the repetitive movements and biological risks there is now greater time-pressure of work. In order to keep a grip on the costs of selective sorting, which is necessary to care for the environment, workers have been put under a lot of pressure, having to do at least four times as much work with the same number of people. Obviously, quality of service suffers". Massimo Cenciotti, national environmental health sector official with CGIL's public service workers' union, paints a sobering picture of binmen's working conditions.

"The risks have gone up, and working conditions have gone down", he goes on. "In 2011, the union recorded 12 workplace deaths¹ – unimaginable a few years ago. Why? Fragmentation of work, faster paces and repetitive movements. Workers bang into things, stumble, fall, all the time loading and unloading. Bags and bins are heavy. Doorstep collections can run up to 600 points, meaning 1 200 bags or bins per round. Binmen are now up in arms. Moving to selective sorting of waste on the same budget as before means taking a big cut in working conditions and endangering workers' health, and the public preventive services are doing nothing."

Five times more work accidents

The municipal solid waste (MSW) collection sector employs 90 000 workers, an average 75% of whom – 67 500 – are street maintenance workers, and 15% of these are women. The sector is run by some 600 public and private operators. Public enterprises employ 60% of the workforce, and the private sector 40%. It is a widely diverse and complex community, with many outsourced services where prevention often goes by the board and workers' health and safety suffers. The National Work Accident and Occupational

Disease Insurance Agency's (Inail) figures are telling: between 2009 and 2011, an average of 133 street sweepers² in 1 000 had a work accident each year – five times more than all other sectors put together³ (see Table 1).

Where occupational diseases are concerned, Inail's official figures are just the classic "tip of the iceberg". There is a much bigger submerged part consisting of diseases whose work-related origin has not been proved, but they include an increased number of musculoskeletal disorders reflecting the risks of handling heavy loads and faster work paces.

1. Compared to the official figure of ten (see Table 1). Inail disputes that two fatal accidents were work-related.
2. The terms "refuse collector/binman" and "street sweeper" fall under the classification of "environmental sanitation operatives" – those responsible for cleaning, refuse collection, protection and improvement of the environment in a given area (National Collective Agreement, Article 15).
3. Specifically, 24 in 1 000 over the period 2008-2010, which are the latest figures available in the INAIL statistical database.

"After seven years' doing this kind of job, they're worn out: binmen die young."

Tableau 1 Compensated work accidents. Street sweepers, refuse collectors and allied workers

	2009	2010	2011
Total cases	9 088	9 169	8 543
of which, workers travelling to/from work	509	588	483
Fatalities	7	6	10
of which, workers travelling to/from work	3	3	3

Source: Inail, database on occupations

4. Federambiente is the association of companies that run public environmental sanitation and hygiene services or apply the national sector collective agreement.

5. Rubes Triva (1921-2001) was an Italian politician who was mayor of Modena from 1962 to 1972 and the president of Federambiente from 1980-1990.

6. The European Centre of Employers and Enterprises providing Public services (CEEP) is one of three European social partners recognized by the European Commission to take part in the European social dialogue. It represents public sector employers.

Research into the causes of musculoskeletal disorders

The National Work Accident and Occupational Disease Insurance Agency (Inail) recently did two research studies into musculoskeletal disorders among Italian refuse collectors. One looked at 701 accidents occurring between 2008 and 2010 as a result of "physical strain on the musculoskeletal system". Fifty percent of the accidents were related to an "improper" body movement (mostly trips, leg or ankle sprains) and 26% occurred while moving objects and equipment (mostly when lifting, carrying or standing up).

The second study focused on repetitive movements in manual sweeping. Inail conducted a field survey of Genoa council street sweepers. The ergonomic analysis focused on identifying the risks associated with manual street sweeping, characterized by repetitive actions, handling of loads and walking including in areas

where the street is uneven or obstructed by vehicles or littered with refuse. The risks were evaluated by the OCRA Index methodology to assess the upper limb musculoskeletal disorder risk from repetitive tasks.

Of the fifteen tasks analyzed, almost all showed a risk present for workers of both genders. The risk index was generally higher for women. The most gruelling tasks are sweeping brick stairs and small cobblestone surfaces (creuza, typical Genoese alleyways), and where there are leaves and on rissèu (small black and white pebble mosaics). For women, the risk is even higher when the bucket (bulacco) has to be carried on the shoulder as happens especially when cleaning creuza and rissèu.

Sources

Guercio A. *et al.* (2012) Analisi statistica degli infortuni e studio dei movimenti ripetuti nelle attività di igiene urbana nelle aziende dei servizi ambientali e territoriali, Roma, INAIL.

Guercio A., Todaro N. and Sarto D. (s.d.) Studio del rischio da movimenti ripetuti nelle attività di igiene urbana presso l'azienda AMIU spa di Genova, Roma, INAIL.

Research to reduce musculoskeletal disorders (MSDs)

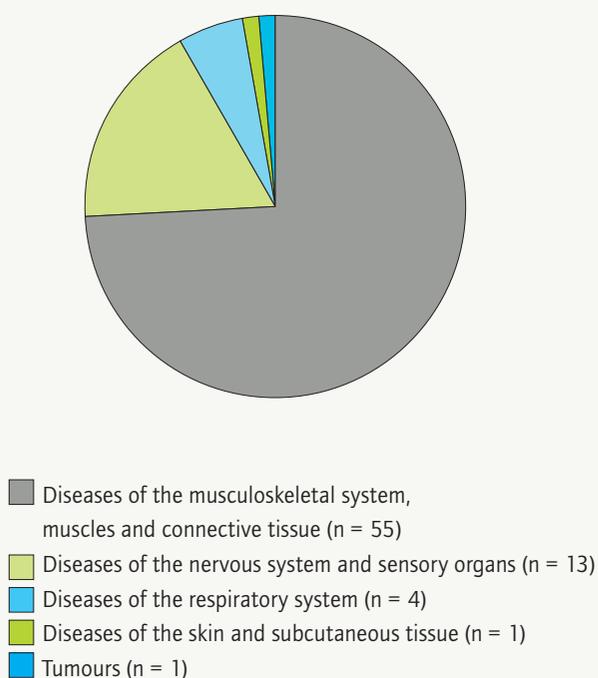
In 2011, the trade unions and employers' organisations in Federambiente⁴ (260 firms) set up the Rubes Triva National Safety Foundation⁵ with the aim of promoting workplace health training and information initiatives and giving support to businesses in the sector to spread a prevention culture. The Foundation conducted joint research with Inail based on data on strain- and repetitive movement-related work accidents to workers in Federambiente member companies (see box).

"The information from these studies is concerning and shows the urgent need to act on the ergonomics of refuse collectors' jobs. That is why CEEP⁶, which we are a member of, strongly supported the proposal for a Directive on musculoskeletal disorders which the European Commission has since dropped", says Rubes Triva Foundation consultant Luca Casale.

EU rules on MSDs may be going nowhere, but in-country initiatives are starting to yield their first measurable benefits. "After a study in Genoa we purchased equipment with ergonomic features that ease and reduce the strain of movements for manual collection in the historic centre, where mechanical means can't be used, and we are working on job rotation between men and women", explains Giuseppe Dagnino, the prevention manager of the city's environmental sanitation departments.

Ergonomic issues have to be addressed by looking at work organization, argues Gabriella Duca, who is coordinating ongoing research commissioned from the University of Naples' Laboratory of Applied and Experimental Economics. "We want to identify the ergonomic problems from manual and mechanical movements made when handling wheelie bins which stem from the fact these activities are carried out in a setting where physical factors (ranging from the type of waste through the weather conditions and features of the dustcarts to road wear, etc.) interplay with human and organizational factors. We will be doing a job analysis using a descriptive method based on direct observation. The result will be proposals to improve the use of work equipment, refuse collection workflows and collection routes."

Graph 1 Recognized occupational diseases. Street sweepers, refuse collectors and allied workers (2011)



Source: Inail, database on occupations

The Rubes Triva Foundation has also supported research by the Institute of Management of Sant'Anna de Pisa Graduate School to assess the cost of work accidents in the environmental health sector⁷.

Alarm bells over ageing workers

"Pension reform means we shall have refuse collectors having to work up to the age of 65. Even today, the average age is 45, rising to 55 in central and southern Italy. After seven years' doing this kind of job, they're worn out: binmen die young. We are sitting on a powder keg when you think that the average age of refuse collectors in Naples is 58", cautions Massimo Cenciotti. Research published in 2005 showed that "street sweeper and refuse collector" are the jobs with the

worst records in terms of health and life expectancy at age 35⁸.

That Italian manufacturers are failing to develop ergonomic work equipment is obviously not helping to improve matters. "Manufacturers must be encouraged to make more ergonomic equipment and close Italy's environmental shortfall where only 150 patents are registered each year compared to 5 000 in Germany", stresses the union rep.

So, what are the unions doing about these problems? "When a fatal work accident happens, the union will often denounce it in strong terms. But they have a hard time standing up to companies, especially private sector environmental sanitation contractors, who often say these matters are none of their concern", says Cenciotti. The trade unionist also argues that health and safety at work is manipulated to other ends: "Instead of

striking, they threaten to enforce all the preventive and protective measures."

"I firmly believe that the union must rely more on workers' safety reps who should be directly elected by the workers, and not appointed by the union reps. This would create a direct relationship between elected officials and those they represent", says Cenciotti. To support and train these reps, the CGIL public service workers' union held a day conference for workers' safety and work environment reps last November to coincide with the RSU elections⁹. The Rubes Triva Foundation was tasked with developing a large-scale training plan to get workers' safety reps more involved so they can make better use of all their powers. "We want to support an awareness in public enterprises that workers' safety reps are a resource for the company", says Massimo Cenciotti. ●

7. The results were presented to the international conference "Investire in sicurezza nel settore dell'igiene ambientale" – Rome, 22 November 2012. The proceedings (some papers in English) are available on the Rubes Triva Foundation website (<http://www.fondazionerubestriva.it/home.aspx>).

8. See Costa G. (2005) Differenze nella salute tra le professioni: spunti epidemiologici per le politiche del lavoro e della previdenza, *Med Lav*, 96 (Suppl), 7-27.

9. In Italy, the joint shop stewards' committee (RSU) is a collective body representing all workers, both union and non-union, doing the same type of work in the public and private sector.