

THSG STATEMENT ON THE CLIMATE CHANGE EMERGENCY, MAY 2019

The Transport and Health Science Group (THSG), is an international scientific society which, together with its sister organisation the International Professional Association for Transport & Health (IPATH), are the principal organisations in the health and transport field. THSG endorses the 'Call for the Declaration of a Climate Change Emergency' by all nations of the world. THSG welcomes the decision of the British Parliament to take the lead.

Climate change is one of the greatest threats to public health across the world. It threatens socio-political, economic and environmental sustainability and hundreds of millions of lives, through

- adverse weather events;
- rising sea levels resulting in flooding to coastal cities,
- drought and lack of water;
- disturbances of food supplies and other ecological changes;
- poor air and potable water quality;
- violence and war over limited resources; and
- the spread of infectious diseases.

The worst-case scenario is that the human species itself could be part of a mass species extinction as we enter a new geological era, the Anthropocene Era.

As the zoologist Prof. Aubrey Manning has said "Human beings have existed for just 200,000 years, yet our impact on the planet is so great that scientists around the world are calling for our period in the Earth's history to be named the 'Anthropocene' – the age of humans. The changes we are now making have exacted a heavy toll on the natural world around us."

We must act now in all areas of policy. As a public health organisation, THSG recommends Health Impact Assessment (HIA) as an adjunct to all policies and such assessments should include climate change within the impacts they address.

So far as transport is concerned there are five key areas.

1. **Healthy zero carbon transport need not impoverish our lives – indeed it can enrich them.**

We append hereto the introduction to Health on the Move 2, published by THSG in 2011, in which we describe how a healthy transport system is compatible with an attractive lifestyle.

2. **The world needs to reduce unnecessary business travel and commuting. Organisations around the world need to consider how they can make use of the benefits of cyberconnectivity.**

We call upon the world's enterprises to continue to explore how international business can be conducted in cyberspace rather than by meetings involving international travel; how attendance at the office can be reduced by working at

home; and how commuting can be reduced by shorter working weeks. We call upon governments to introduce incentives for such changes.

We call for the establishment in all communities of neighbourhood work stations to provide people with the facilities necessary not to have to travel to the office. We call upon governments to fund this endeavour.

We call upon international organisations to limit the occasions on which people need to fly to meetings by arranging for committees requiring such travel to hold only one or two meetings a year face to face with the remainder in cyberspace. We call upon the United Nations to set an example on this matter.

We recognise that action has been taken on some of these measures but it has not gone far enough or been extensive enough. All organisations need to catch up with the best and the best need to go even further.

3. The world needs to replace aviation with a zero-carbon alternative. Airport development should be halted and the creation of an alternative should be urgently planned.

We believe that the role of aviation in the future will be limited to flights across oceans and polar ice caps; flights to islands which are too far from the mainland for a bridge or frequent ferry; and local transport in remote roadless areas like Alaska, Antarctica, the Amazon and the Australian outback.

The bulk of existing passenger aviation can be replaced by high speed trains or by new systems like the hyperloop. Air freight may be reduced by accepting seasonality for some produce or by faster international rail freight services.

We call upon the governments of the world to halt all investment in airport expansion and to commence the active development of an international high-speed rail network. A first step in planning this network will be a decision as to whether or not the hyperloop is likely to become viable as the basis of such a network.

4. The world needs to replace the private car with transit systems and to replace long distance road freight with freight by rail and by water, the role of the lorry being only at the final stage of the journey to the ultimate destination. There should be an immediate halt to highway development and highway improvement programmes and the money should be redirected to the development of alternatives.

We call upon governments to halt investment in expansion or improvement of the motorway network and reallocate limited fiscal resources to rail, public transport and walking and cycling infrastructure.

Replacing road freight with rail would have substantial benefits for ecological sustainability and spatial demand. A longstanding challenge to such a policy has been how to ensure 'to door' delivery, given that rail lines cannot be built to all necessary end points. Replacing motorways with trains that carry freight containers already loaded on lorries, ready to drive away at the rail terminus, offers an innovative solution to these issues.

It is not possible to develop cities based on the private car as the primary mode of transport without negative impacts on human health, quality of life and well-being. At least a third and perhaps two thirds of urban trips can be made on foot or by cycle. Cycle freight is capable of substituting for about half of urban delivery journeys. Rapid transit systems, whether rail based or bus based, can be developed as a viable alternative to the urban use of the private car. Governments should support and fund modal shift and invest in the networks that will make it easier and more efficient.

As we move towards driverless vehicles, the question of whether such vehicles operate door to door with a single user or station to station with shared use should be explored. A stream of guided vehicles shared by users making the same journey is a viable form of rapid transit. Individually used door to door autonomous vehicles would dramatically increase the number of cars on the road with an adverse effect on congestion that would offset the benefits of more efficient road use and would reduce walking and cycling, exacerbating the international obesity pandemic. Integrating guided vehicles into a rapid transit system could increase walking and cycling (at least as far as the station) and would reduce congestion to any guided system.

Guided buses and tramways provide vital opportunities for rapid transit in urban areas where any transport space is often rapidly dominated by private cars and private hire vehicles. Mixing light and heavy rail use in the same tracks may offer innovative solutions to crowding and surge responsiveness.

Free public transport should be considered as a possible way to promote modal shift.

The combination of the cycle and the train is a transport mode that can match the flexibility and speed of the private car. At the same time, it can introduce greater physical activity and be more environmentally sustainable. People cycle to a railhead, take a train to another railhead, and then cycle to their destination. They take their cycle with them, keep a second cycle at the other end for a regular journey, or hire a cycle.

Barriers to this combined mode have historically included: the prohibition of cycles on trains and trams due to crowding; inadequate bicycle storage capacity and/or safety; and inadequate shower and change facilities at destinations. These barriers should be addressed.

There should be a sharing of experience between cities, learning from the experiences of those which have been most successful. No Car Days (days on which all cars are banned) can help people understand the alternatives available whilst also providing an impetus to reducing the number of working days.

5. Whilst water freight is preferable to air freight, the shipping industry also needs to address its carbon footprint and the effect of oil spills

It has been shown to be possible to power a large yacht with sails and auxiliary electric power derived from very thin solar panels covering the sails. The

development of this technology so as to allow fossil-fuel-powered ships to be replaced by sailing ships with auxiliary solar-powered electric engines should be explored urgently with a view to making it economically feasible in the relatively near future.

The concept of a Climate Change Emergency is that the necessary actions should be urgently undertaken, with the resolution of the problem being viewed as an overriding priority that takes precedence over caution and inertia, political considerations, commercial interests, or fear of the reactions of those pursuing self-interested support of the status quo. It is not enough to point defensively to what has already been done – even the best must not rest on their laurels but must do more and must call upon others to follow their lead. If your house is on fire, you do not respond by checking diaries to see when everybody is free to sit down and discuss the problem. Humanity has only a limited time available to prevent the horrendous consequences of climate change. It is time for action, not for faint heartedness.

APPENDIX – LIFE WITH A HEALTHY TRANSPORT SYSTEM

Reproduced from the introduction to our publication Health on the Move 2 Mindell JS, Watkins SJ, Cohen JM (eds). Health on the Move 2. Policies for health-promoting transport. Stockport: Transport & Health Study Group, 2011

Jean checked her diary for the day. It wouldn't be necessary to go into HQ. But there were some meetings which would need her to use the video facility at her local neighbourhood work station. She pondered whether to go to the work station for the whole day or whether to work at home in the large office that they had built in the garage when they gave up the cars. She'd rather like the company, she thought, and Angela was always there on a Tuesday so she'd be able to ask Angela for advice about storing her parents' motorised transport contraptions once they convert their garage into a downstairs bedroom. It had taken her so long to persuade them to do this but, of course, her parents' generation had grown up in the days of private transport and found it hard to abandon old attitudes. Angela always used the community transport bus door to door whenever she needed to go further than her self-propelled wheelchair could manage. Jean had only ever used this when she had heavy luggage but she wondered if it would answer all her parents' travel needs too now they had finally given up driving regularly.

Coming back to the present she settled down to eat her breakfast. Bacon from the pig farm in the next village. Eggs from her own hen. Toast and marmalade, made from good Sheffield oranges grown in the multi-storey farms of the Don Valley.

David had overslept. Not surprisingly after the late night he had had the previous evening. As she was finishing her breakfast he joined her, spent a few minutes bolting down some cereal (from the multi-storey farms at Ringway, built on the site of the old airport) and rushed out to get his bicycle.

“It’s pouring down” she said “Why don’t you walk?” “Too late” he said as he pedalled off to the station.

Jean followed him but she walked along the covered walkway to protect her from the rain. It was a nice street. Rose gardens and trees and children’s play areas filled the gaps between the opposing houses. On a sunny day Jean would have wandered amongst them, chatting to neighbours and watching the children play in the street out of harm’s way but today the weather called for being under cover. Half way to the work station there was the facility that Jean had pressed so hard for when the street was being designed – the open-air swimming pool. As she passed the swimming pool, the delivery van bringing the shopping up to the local shop for people to collect was picking its way along the carriageway. Unlike the straight direct cycleway, motor vehicles had to negotiate the gaps between the obstacles rather than having a protected carriageway. Jean watched the van, its guidance devices, speed regulators and obstacle detectors all fully engaged, as it inched gingerly along the edge of the pool. It reminded her of the incident last winter when the council had only had enough grit to do the pavements, cycleways and busways and the roads had been closed. The delivery van driver had foolishly ignored this and had ended up in the swimming pool and winner of You Tube’s Idiot of the Week.

As Jean arrived at the work station, checked her booking of the videoconference for the meeting that afternoon, switched on her computer, and started to write a lecture for medical students setting out the evidence for the powerful health benefits of social networks, David was arriving at the Metro station.

He inserted his card and keyed adult single with cycle to Emmerdale into the journey planner. A recorded voice came over the intercom. “Next but one service from Platform 3. Change at Angerfield, which is the fourth station, for a bus to Emmerdale from stand E.” Then a real human voice replaced it as the controller intervened. “The Emmerdale bus is demand-responsive and you are the only person booked on it today. If you’d prefer we could let you have a car from the Car Club for the normal bus fare and without road charges.” They often made this offer when he was going to Emmerdale. Usually he took it but today he was feeling tired and he didn’t think it would be safe so he declined, collected his tickets and made his way to the platform. The freight train to the shopping distributive warehouse at Angerfield was passing as he reached the platform, then the fast train to the city drew up into the platform making the wayside stop that it made here once an hour instead of running through non stop as it did the rest of the time. David knew this train stopped at Angerfield. They wanted him to wait for the tram because he would get no benefit from the train due to the connection and they liked to keep short distance passengers on the trams if they could. But he rather fancied the plusher seats of the train so he climbed aboard, stored his cycle in the cycle van and lounged back into a seat. The train flashed past the three intervening tram stops and overtook the freight train as it manoeuvred itself into the shopping sidings. Then the train drew up at Angerfield. He made his way to stand E and relaxed in an armchair watching the trolley buses come and go as he waited for his own bus. While he waited, he thought about their holiday. 15 days on a cruise train. They started with a day in Paris, then a slow daytime ride across the Alps with a break at Innsbruck. Full days spent, in Venice, Bled, Dubrovnik, Athens, Istanbul, Samarkand, St Petersburg, Narvik and Bergen, sometimes linked by high speed overnight travel, sometimes interspersed with slow,

looking out of the window days. He thought Samarkand and Athens would be the highlights of the trip.