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*'Broadening the Horizon for Community and Primary
Health: A Change to Believe in'*



The Feasibility of a Walking Bus in a Local Village Setting

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Background

'The epidemic of obesity poses one of the most serious public health challenges in the WHO European Region. The trend is particularly alarming in children and adolescents'

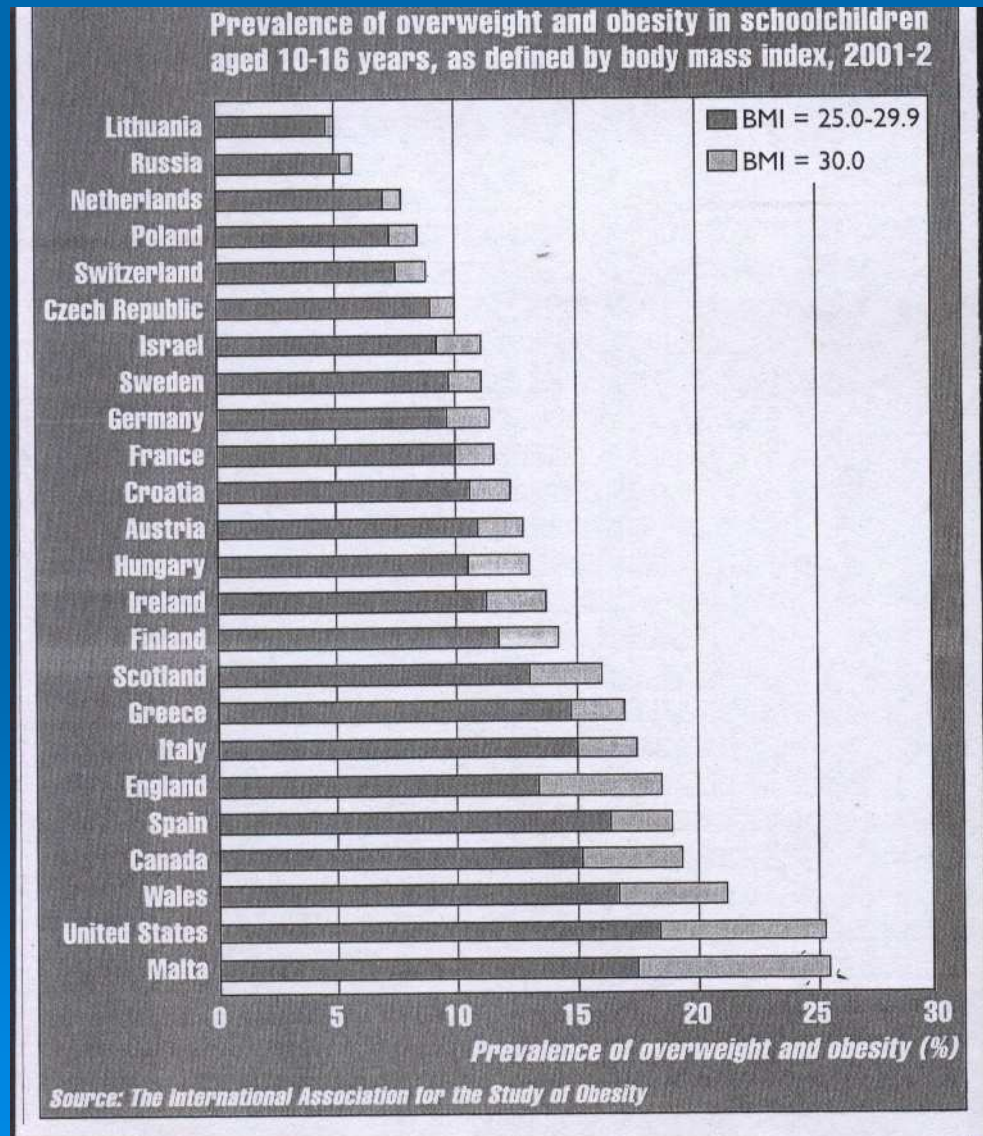
-WHO European Charter on counteracting obesity, Nov 2006

'Childhood Obesity: a critical Maltese health issue'.

- Grech, 2007

One in four Maltese 11-16 year old adolescents (28.63 %) are overweight, and one in nine (11.32%) are obese (Decelis,1998)

Fat fabrications



No single factor exists to which the rise in childhood obesity can be attributed...

**Nutrition
(calories in)**

- Energy dense foods
- Changing food marketing
- Less food prepared in the home
- Poor eating patterns
- Larger portion sizes
- Less breastfeeding

Increasing



**Physical activity
(calories out)**

- Convenient lifestyles
- Rise in sedentary pastimes
- Less unsupervised outdoor play
- Less sport in schools
- More car journeys, especially to and from school

Decreasing



Positive energy
imbalance



- Active transport, to and from school, provide an convenient opportunity for school aged children to increase their levels of daily physical activity (Davidson et al, 2008,;Moodie et al, 2009, Nelson et al, 2008)
- **Active transport can lead to physical, mental, health, safety and environmental benefits. (VicHealth, 2003)**
- The majority of Maltese children live within walking distance from state primary schools

➤ There are a number of real and perceived barriers for active commuting, mainly related to:

- Perceived danger to children from strangers
- Road safety

(Kerr et al, 2006; Timperio, Crawford & Salmon, 2004)

- More women working, adding time pressure to family living (Morris, Wang & Lilja, 2001)

- A Walking Bus project offers a potentially important strategy to reduce overweight and obesity.
- This study presents an evaluation of a pilot Walking Bus Project and its feasibility



What is a WALKING BUS?

The Walking Bus is very popular in many other European countries: England, Italy (scuolabus a piedi), Germany and Australia

It is the latest, safe, fun and healthy fun way to travel to school

It's not...



Children and parents meet every morning at a walking bus terminus or walking bus stops



They walk along a set route to school as a group accompanied by parents



All children wear fluorescent bibs sponsored by Kunsill Malti ghall-iSport

One of the parents collects the bags in his/her car and takes them to school



Children collect their bags before entering school



Methodology

➤ Preliminary study

400 questionnaires, 220 returned - 55%)

➤ Intervention

10 weeks - 50+ participants, 4-11 yrs

➤ Evaluation

- Field observations (13 sessions)
- Questionnaires: parents/children (12)
- Interviews - teachers (6)
- Interviews - administrators (2)

Preliminary study on the method of transportation and interest in the project

➤ Transport

- Mini-Van – 23%
- Walking – 40%
- Private car – 37%

➤ Parents willing to walk to school with their children

- Yes – 36%; No – 64%

Preliminary study ...

- Parents living along the pilot route who were willing to start walking with children (& who did not travel by van)
 - 45
- Parents willing to carry bags to school (various options were given)
 - 10
- Parents willing to attend a meeting
 - Number: 87

INTERVENTION

- 50+ students (35 new students)
- 10 weeks (April – June 2006)
- Mornings only
- 20-minute walk (max)
- Collaboration:
 - Institute for PE and Sport
 - Kunsill Malti għall-iSport
 - Health Promotion Unit
 - Primary School

Results – Parents

- Parents enjoyed this experience and praised this initiative
- It was a great opportunity to work with other parents, with school administration and other entities
- It helped both their children and **parents** to be active
- Some parents said they had lost weight, particularly those who did not live along the route and had to park the car, join the walking bus, and then walk back to the car.

Results – Parents

- Children woke up before them and were eager to walk to school and meet their friends
- Punctuality was important not to miss the bus
- Children learned how to walk safely to school
- Children learned that they can contribute towards a cleaner and smoke-free environment

Results – Parents

Challenges

- Most parents stated that no difficulties were encountered, and minor challenges were overcome very easily.
- *There were instances when only a few parents accompanied the children (already solved following a meeting at school) (4)*
- *They had to stop the traffic for children to cross the road, a police officer or a traffic warden might do a better job (2)*
- *The closest Walking Bus Stop was quite far from where they live (1)*

Results – Parents

Challenges

- *‘Parents’ commitment was very important. We found a lot of co-operation from the school administration during the initial stages. More support is needed from the local council, particularly for Walking Bus Stop signs, and a special permit for our car/s to park next to the school to unload children’s bags’. (1)*
- **Hot weather in June (1)**

Results - Children

All the children stated that:

- ❑ They had fun
- ❑ **They made new friends**
- ❑ It was an excellent opportunity to be active
- ❑ **They learned how to walk safely to school, without carrying heavy bags**
- ❑ They learned how they can contribute towards a cleaner environment
- ❑ **They started the day with more energy**

Results

Teachers' Interviews

- *'An interesting initiative to encourage children to be active'*
- *'Children arrived at school on time, and were more alert and ready to listen' (they had already talked enough)*
- *'Children were proud to be part of the project, wearing bibs till 10am'*
- *'Less cars and less traffic congestion around the school, leading to a cleaner environment (less emissions)'*
- *'More car spaces were available'*

Interviews with School Administrators

- School administrators described this initiative as a good opportunity to work with parents and other entities and as an excellent way to encourage children to be active
- Establishing a safe route and piloting it is very important before starting the project
- Walking bus vs bus competition
- The main challenge is having enough parents to keep a good parent to child ratio (1 is to 6). Some parents started working during the project and had to quit.

Results – Field Observations

- Confirm all the results presented above,
- Children and parents were very enthusiastic to participate in this project
- It was an excellent opportunity to work as a team: parents, school, other entities.
- School administrators were very supportive (preliminary work, meetings, paperwork, monitoring)

Discussion

- This study confirms the benefits of other studies, mainly physical, safety, environmental, and social. (measured with questionnaire data)
- And also the challenges presented in other studies - mainly safety, which could be tackled during the planning stage by planning a safe route, and with support from parents; and supervision ratios because many parents are working.
- In England the Walking Bus operates on a 'rain or shine' basis. Local weather is more walking-friendly. Although parents did not mention rain as a barrier, it was mentioned repetitively during the discussion phase.

Conclusions

- If safety issues are tackled at the early stage of planning, running a Walking Bus is very feasible.
- **The main stumbling block is availability of parents to accompany their children and to carry the bags.**
- Low-cost interventions can increase the amount of physical activity of children and their parents and reduce air pollution.
- **There is a need for further support and funding from government .**
- A national co-ordinator and school co-ordinators are needed to extend this project to all schools

Conclusions

- We need to extend this initiative to all local state schools (already extended to three routes in the same school and introduced in another three schools)
- Schools should seek to engage parents, grandparents, senior citizens and other commuting volunteers
- They need to work in partnership



Thank you!