**Appendix 1** Identified themes through meta-synthesis of qualitative studies

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| Themes | Subthemes | Enablers/Barriers | Selected quotes |
| Financial impact | Policy-compliant food costs  | *Enabler* | - |
| *Barrier (n=5)* | *“The consumer is telling us they want certain types of food, and consumers want things that are faster, and salad bars are expensive – the simple fact is that you can’t eat well at the same price point as you can eat poorly.” (Principal)* |
| Changes in profit/revenue  | *Enabler (n=2)* | “*Well, I was not happy when it first came out but the kids are eating what we serve them pretty well and I know it’s healthier for them and I guess I think its okay”* |
| *Barrier (n=13)* | *"Distributor of vending machines [is] letting us know that revenue intake is not as high because we only offer healthy options in them. Sales are not high and [vending machine] activity decreases. But they have to realize we aren’t in it for making money but to give healthy choices to students".* |
| Human resources | *Enabler* | - |
| *Barrier (n=4)* | “*They have a hard time at our school even getting people to volunteer for the lunch program, which is probably why they serve just the fatty stuff. But it would be nice to see them improve with that, in that aspect. I figure if they had more support, they would be more willing to try and serve something nutritious*.” |
| Funding | *Enabler (n=2)* | *“Appropriate resources and support were considered key facilitators to the implementation of the guidelines”.* |
| *Barrier (n=5)* | “*I think that there . . . it’s all meant to be for the good part of it but as a smaller school, it requires us to have maybe more staff or increase in the cost when you are making a school that is in a lower social economic area, can cause maybe more hardship because as the price is going to have to go up and therefore your proportions are not . . . we used to give a lot bigger proportions before all the requirements came down so we are giving less food”* |
| Fundraising | *Enabler*  | - |
| *Barrier (n=2)* | *“Because many schools find themselves underfunded, many teachers, administrators, and parents raise money for school activities and functions. One of the mainstays of fundraising had been low-nutrition food items”* |
| Food wastage | *Enabler* | - |
| *Barrier (n=2)* | “*You can put the food out there but I guarantee you that probably 2/3 of it gets thrown in the garbage and it’s just aggravating that a lot of these kids need to eat here because they don’t have a lot of food at home and to see all this food get thrown away is just crazy”* |
| Physical food environments | Policy-compliant food availability  | *Enabler* | - |
| *Barrier (n=5)* | *“In terms of hot lunch program, trying to find cheap, easy, quick, child-friendly lunches that would meet the policy [guidelines] is not easy.”* |
| Geographical proximity of unhealthy foods  | *Enabler* | - |
| *Barrier (n=9)* | *“It [school food and beverage policy] just changes their habits. It doesn’t change their habits in what they are eating. It changes their habits in terms of where they are getting the food.” (Principal)* |
| Nexus between home and school | *Enabler* | - |
| *Barrier (n=5)* | *“I am concerned also that we have a great number of parents at our middle school who everyday bring their children these meals from the burger joints and stuff around town and while we are trying to follow nutritional guidelines with at least 90% of the kids. Here is one kid sitting at the table with his fast-food hamburger and fries and soft drink”*. |
| Resources | *Enabler* | - |
| *Barrier (n=4)* | *“Having an individual solely hired for the purpose of promoting nutrition and physical activity would be most beneficial because of lack of time and resources at [the] school already……. someone dedicated to make the guidelines come to life would be very helpful.”* |
| Characteristics of the policy | Knowledge and understanding of the policy  | *Enabler* | - |
| *Barrier (n=8)* | *"Some people take it as being policy, other people take it as being guidelines, and that's where it becomes very difficult for us to implement it"**“There is a lot of mythology in terms of what people think is healthy. That needs to be worked on. We think because it’s a granola bar it’s a good choice, but we don’t take the time to look into what’s in it. Trying to purchase healthy food to resell is difficult as they [staff] don’t necessarily have the best knowledge themselves.”* |
| Policy communication and clarity | *Enabler (n=3)* | *“Stakeholders (school staff, canteen managers, parents) were informed, information materials were useful and user-friendly (provided by department of education and training). Some schools were proactive in engaging with the community through newsletters, local papers, announcing schools new menu and explaining the reasons for change”* |
| *Barrier (n=5)* | *I don’t find that our school has a whole lot of communication whenever they’re doing something. It’s just kind of done and then you read it later in the newsletter.*”; “*They should have said…, ‘What do you think?’… or they might have said, ‘Would you enjoy this?*’”*"The policy was dictatorial, even though it wasn't formally intended to be dictatorial. Bu t the interpretation became that way and basically we had a revolt on our hands from students and staff”* |
| Management of the policy  | *Enabler (n=7)* | *“One principal (S1) mentioned that they had formally reviewed the implementation of the strategy ‘about three years ago, so around the start of the healthy canteen policy with our canteen committee’. ‘The new book comes out every year and we go through them and see what foods are still in there . . . I review it by checking what’s gone out because sometimes they will be approved one year and the next year they won’t’ (canteen manager).”* |
| *Barrier (n=1)* | *“I believe that there is not sufficient enforcement of [the wellness policy]. It’s kind of left up to each administrator, left up to almost down to the individual teacher. Nobody comes over and says, “Are you doing this, this, and this? Are you meeting this and that goal?” We don’t have set goals that are set in place that we need to meet”* |
| Accountability | *Enabler (n=1)* | *“There were complaints from small groups of parents, children and canteen workers but it was quickly resolved by explaining that the policy is permanent and non-negotiable. Canteen workers were replaced if they disagreed to comply with the policy”* |
| *Barrier (n=1)* | *“Where my concern is the accountability . . . they say we building principals are in charge, but are we really? Who are we held accountable for? Are we making sure that [the 50/50 rule is being enforced] . . . are we really adhering to that? Who is really checking that”* |
| Stakeholder engagement  | Attitudes of school staff  | *Enabler (n=4)* | “*Um for the most part I think the changes are wonderful. Um, I’m behind the uh, fruits and vegetables I think it’s been a long time coming, and uh, the whole grains are great*” |
| *Barrier (n=9)* | *“We want to teach kids to eat healthy foods to help prepare them. But we also live in the real world, and if we don’t teach moderation they are never going to learn it.”* |
| Students’ preferences and attitudes | *Enabler (n=4)* | *“It actually went unbelievably smoothly. There were some questions earlier on, in terms of the staff more than the kids, on how the whole process was going to happen and what needed to be put in place, but it actually has gone quite smoothly. I haven’t had any complaints from kids in terms of the Policy and I think that’s probably the best measure in terms of how smoothly it’s gone”* |
| *Barrier (n=8)* | *“I mean, sometimes—I’m going to be honest—sometimes we change something and sometimes we go back to it…. We’ve gone back to offering pepperoni-and-cheese pizza [in response to students’ demand].”*“*…A lot of the food doesn’t appeal to certain children. You know children have food likes and dislikes*.” |
| Attitudes of parents  | *Enabler (n=3)* | *“We had one of our parents, who was very proactive in wanting healthy lifestyles, do a lot of research for us, and that was great. He or she actually went out and tried to purchase different things as samples that we could put in vending machines, those kinds of things”* |
| *Barrier (n=3)* | *"The challenge would be dealing with parents. ‘‘It’s my choice as a parent to pack this as my child’s lunch. How dare you criticize me?’’ That’s the challenge. It’s really difficult to get parents to stop celebrating children’s birthdays with cupcakes and stuff and I don’t know if we are ever going to change that. We still want to do that here. Some schools have banned these but we haven’t and I don’t know if we ever will"**“I dislike being told what my children are allowed to eat.”* |
| Big food influence | *Enabler* | - |
| *Barrier (n=2)* | *“Food companies such as Pepsi, Coca-Cola, and McCain Foods sent faxes to school districts, "all saying that we're making a mistake. . . They think that we're denying kid s choice"* |
| Organisational priorities | Academic performance | *Enabler* | - |
| *Barrier (n=4)* | *“Well boards are under such tremendous pressure to show improved performance, I mean, the business of education is so complex that there’s so many other things that they have to be looking at.”**“The bottom line is that no child should ever be hungry, If they are hungry, they can’t learn, you can’t teach them. Their priorities are so different.”* |
| Other competing priorities | *Enabler* | - |
| *Barrier (n=3)* | *“We are an inner-city school…in some cases feeding kids is more important”* |

n- number of studies