

Presentation of findings and results: examples from a mixed methods review

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REPORT

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MIXED METHODS SYSTEMATIC REVIEW

Communication of children's weight status to parents and children: What is effective and what are the children's and parents' experiences and preferences?

https://fhi.brage.unit.no/fhi-xmlui/bitstream/handle/11250/2634508/Ames_2019_Com.pdf?sequence=2

RESEARCH ARTICLE

Open Access

Communication of children's weight status: what is effective and what are the children's and parents' experiences and preferences? A mixed methods systematic review



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Abstract

Background: Early intervention and conversation about a child's weight may offer an important chance of success in reducing weight and implementing a healthier lifestyle. This review explores the most effective ways to notify parents and children about the child's weight as well as their preferences and experiences around weight notification.

Methods: We systematically searched nine databases for relevant primary research. Records were independently screened by two authors. We extracted data into a form designed for this review. Effect data was analysed using narrative synthesis and qualitative data using a best-fit framework synthesis. We assessed our confidence in the evidence using GRADE and GRADE-CERQual.

Results: Studies of effect found that the format of feedback made little or no difference in parents attending further treatment, recognising their child as overweight or obese, reactions to the way the weight notification is given, motivation for lifestyle change, understanding how to reduce the risk of overweight, or taking any action. However, parents receiving feedback with motivational interviewing have somewhat greater satisfaction with the way the healthcare provider supports them.

Qualitative studies found that parents had clear preferences for the format, timing, content and amount of information they wanted to receive in relation to both the weighing process and weight notification. They also had clear preferences for how they wanted health care providers to interact and communicate with them and their children. Both parents and children often felt that they were not receiving enough information and worried about how their results would be kept private. Many parents experienced an emotional response when told about their child's weight ranging from positive, disbelief and negative feelings. Those who reacted with disbelief or negatively were less likely to accept their child's weight status and/or act upon the notification letter. No studies reported results for children who were underweight.

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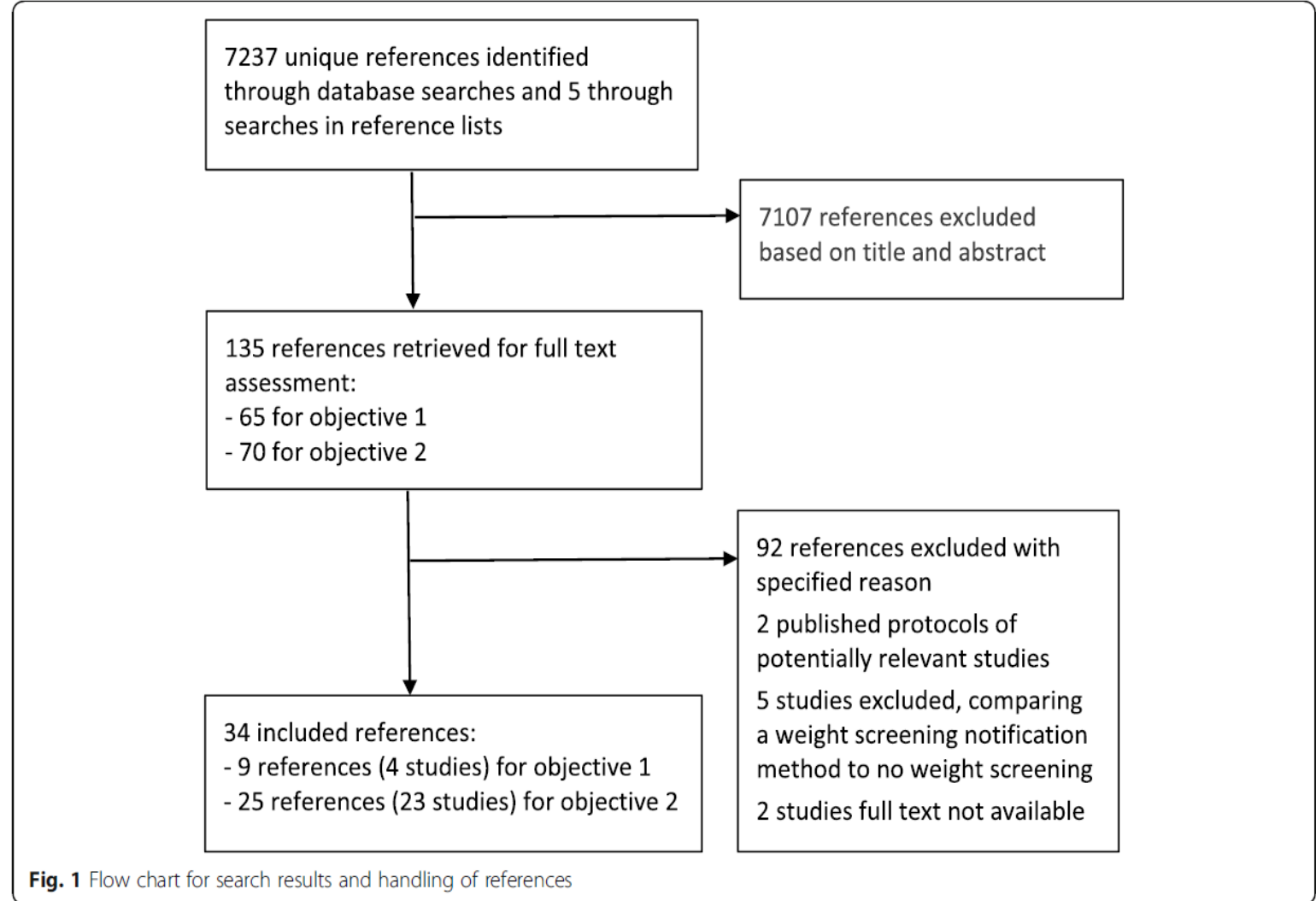
<https://bmcpubhealth.biomedcentral.com/articles/10.1186/s12889-020-08682-w>



Remember these
are also findings...

- **See the template**
- Description of the results of the search (PRISMA flow chart)
- Description of the included studies
- Description of the excluded studies
- Description of the division of the findings
- Evidence profiles

PRISMA Study selection diagram





Systematic reviews of effect

Introduce the comparison/intervention

Comparison 3: effect of different formats of written weight-screening feedback

We included one study comparing the effect of different formats of written weight-screening feedback to parents after school weight screening (51). The study was conducted in Mexico and compared three different formats of written weight-screening feedback to parents (results for a fourth group of parents receiving no information is not included in this review). The parents of 824 children identified as obese and overweight receiving any of the written weight-screening feedback letters are included in the analyses. Activities given to the different intervention groups are summarised in table 13. The letters differed with regard to whether BMI and health information was presented i) without comments, ii) with messages about the health risks, or iii) with information about other children's weight status. Thus, this study compares three active treatments against each other.

Introduce the study(s)

Table 13: Description of the interventions and control measures in the study of different formats (phrasing) of written weight-screening feedback letters

| Author id. (reference) | Activities given to the intervention group | Activities given to the comparison group |
|------------------------|---|--|
| Prina 2014 (51) | <p>RISK group: After routine school weight screening of the children, the parents received written feedback as for the BASIC group. In addition, the parents received information about the health risks of their child's weight category. Parents of normal weight children received information about the risk of becoming overweight or obese.</p> <p>COMPARE group: After routine school weight screening of the children, the parents received written feedback as for the BASIC group. In addition, the letter contained information about the number of children in the child's class within each of the weight categories underweight, healthy weight, overweight or obese.</p> | <p>BASIC group: After routine school weight screening of the children, all parents received written feedback in a sealed envelope with the child's BMI centile, their category as underweight, healthy weight, overweight or obese and contact information to a nutritionist that could be consulted free of charge.</p> |

Describe findings and analysis

Since only one study concerned different formats of written weight-screening feedback, we have not done meta-analyses. Prina and colleagues (51) presented 10 outcomes for this comparison. We have extracted findings on whether the parents attended an information meeting about obesity risk and outcomes from a follow-up questionnaire and measurements 3 months after the weight screening session. The results are presented in table 14.

Table 14 contains the main findings and our GRADE-assessments regarding our confidence in the estimate of effect

Present the findings

Table 14: Effect of different formats (phrasing) of written weight-screening feedback letters

| Outcome, follow-up | Proportion with simple written feedback letter (95% CI) | Proportion with written feedback letter containing health risk messages (95% CI) | Proportion with written feedback letter and BMI distribution (95% CI) | No. of participants (Studies) | Quality of evidence (GRADE) |
|---|--|--|---|-------------------------------|-------------------------------|
| Population: Parents of children attending weight screening in school, the obese and overweight children only. | | | | | |
| Countries: Mexico | | | | | |
| Intervention: Weight status feedback using basic written weight feedback letters. | | | | | |
| Comparison: Weight status feedback using either risk messages or comparing child to BMI distribution in class. | | | | | |
| Parents attended follow up session/contacted health care provider | | | | | |
| Attended parents' information meeting, 2 weeks | 19.6% (12.0% to 27.2%) | 19.9% (12.1% to 27.7%) | 22.4% (14.6% to 30.2%) | 824 (1 RCT) | ⊕⊕○○ LOW ¹ |
| Took any action, 3 months | 96.3% (90.4% to 102%) | 96.7% (90.8% to 103%) | 93.8% (86.5% to 99.5%) | 465 (1 RCT) | ⊕⊕⊕○ MODERATE ² |
| Parental recognition of child's overweight or obesity | | | | | |
| Classified child's status correctly, 3 months | 5.9% (-5.7% to 17.5%) | 38.8% (25.9% to 50.0%) | 40.8% (29.6% to 52.0%) | 459 (1 RCT) | ⊕⊕○○ LOW ¹ |
| Child's subsequent weight status | | | | | |
| BMI (kg/m ²), 3 months | 21.5 (21.2 to 21.9) | 21.6 (21.2 to 21.9) | 21.5 (21.1 to 21.8) | 755 (1 RCT) | ⊕⊕⊕○ MODERATE ² |
| Adverse outcomes | | | | | |
| Any outcome | The studies did not assess any relevant adverse outcomes | | | | |
| 1. Downgraded by 2 levels because of unclear to high risk of bias and imprecision | | | | | |
| 2. Downgraded by 1 level because of unclear to high risk of bias | | | | | |

RCT: Randomised, controlled study

Summarise the findings using GRADE language

In summary, parents receiving different formats (phrasing) of written weight-screening feedback letters:

- probably have little or no difference in taking any action to address their child's BMI or in their child's subsequent BMI
- may have little or no difference in whether they attend parents' information meetings
- may have somewhat lower ability to classify their child's weight status correctly when they only receive simple written feedback.

None of the studies examined adverse outcomes.

Evidence profile (Appendix)

Table 3: Effect of different formats (phrasing) of written weight-screening feedback letters.

| Quality assessment | | | | | | | Summary of findings | | | |
|---|--------------|---------------|--------------|-------------|------------------|-----------------------------|---|--|---|--------------------------|
| No of participants (studies) Follow-up | Risk of bias | Inconsistency | Indirectness | Imprecision | Publication bias | Overall quality of evidence | Study event rates (%) | | | Relative effect (95% CI) |
| | | | | | | | Proportion with simple written feedback letter (95% CI) | Proportion with written feedback letter containing health risk messages (95% CI) | Proportion with written feedback letter and BMI distribution (95% CI) | |
| Parents attended follow up session/contacted health care provider- Attended parents' information meeting | | | | | | | | | | |
| 824 (1 RCT) 2 weeks | Unclear-high | None | None | Serious | None | ⊕⊕○○ LOW | 19.6% (12.0% to 27.2%) | 19.9% (12.1% to 27.7%) | 22.4% (14.6% to 30.2%) | - |
| Parents attended follow up session/contacted health care provider- Any action taken | | | | | | | | | | |
| 465 (1 RCT) 3 months | Unclear-high | None | None | None | None | ⊕⊕⊕○ MODERATE | 96.3% (90.4% to 102%) | 96.7% (90.8% to 103%) | 93.8% (86.5% to 99.5%) | - |
| Parental recognition of child's overweight or obesity - Correct classification of child's status | | | | | | | | | | |
| 459 (1 RCT) 3 months | Unclear-high | None | None | Serious | None | ⊕⊕○○ LOW | 5.9% (-5.7% to 17.5%) | 38.8% (25.9% to 50.0%) | 40.8% (29.6% to 52.0%) | - |
| Child's subsequent weight status - BMI (kg/m²) | | | | | | | | | | |
| 755 (1 RCT) 3 months | Unclear-high | None | None | None | None | ⊕⊕⊕○ MODERATE | 21.5 (21.2 to 21.9) | 21.6 (21.2 to 21.9) | 21.5 (21.1 to 21.8) | - |



Qualitative evidence synthesis

Introduce the findings section

Timing of information

One finding addressed participants' experiences and preferences related to the timing of information they received concerning the weighing process and notification. Table 16 presents the summary of qualitative findings for the finding in this section.

Summary of qualitative findings table

Table 16: Summary of qualitative findings related to timing of information

| Finding | Overall GRADE-CERQual assessment | Explanation for assessment | Contributing studies |
|--|---|---|---|
| 1 Some parents felt that there was a lack of communication and information about the weighing and notification process. They wanted information about the weighing process before the testing occurred to know what to expect and again before the results were sent home in order to be prepared to receive the letter. They wanted the information to be up to date with recent measurements. | Moderate confidence | Due to minor concerns regarding methodological limitations and major concerns regarding relevance | Alba 2018 Ayash 2012 Jorda 2017 Ruggieri 2016 Schwartz 2010 |

Summarized finding

Qualitative finding 1: Some parents felt that there was a lack of communication and information about the weighing and notification process. They wanted information about the weighing process before the testing occurred to know what to expect and again before the results were sent home in order to be prepared to receive the letter. They wanted the information to be up to date with recent measurements (moderate confidence).



Detailed finding

Participants in five studies from the USA discussed their experiences with and perceptions with the timing of the information that was sent home about weight screening (73, 74, 81, 90, 96). Some felt that there was a lack of communication and information in general about the weighing and notification process (73, 90). Some felt that the notification process prior to testing was weak and that they had not received any or enough information (73, 81, 90, 96). The school claimed it sent out information at the beginning of the school year. However, this could result from the information being hidden in all of the other forms that parents had to fill in and look at and so could be overlooked (73, 81, 90). This was confirmed by a mother who said her principal did a good job in communicating often about the screening process and when they would receive the letter and because of this she had a more positive reaction to receiving the letter (90). Others felt that they wanted notice of when to expect the results in the mail so that they could prepare instead of it coming as a shock (73, 81) and that the information should

be sent out quickly so that it is up to date (74). Parents in one study described wanting regular, reliable, and systematic information disseminated through all phases of the screening process as being imperative (90).

Evidence profile (Appendix)

Timing of information

| | |
|--|--|
| Finding 1: 1- Some parents felt that there was a lack of communication and information about the weighing and notification process. They wanted information about the weighing process before the testing occurred to know what to expect and again before the results were sent home in order to be prepared to receive the letter. They wanted the information to be up to date with recent measurements. | |
| Assessment for each CERQual component | |
| <i>Methodological limitations</i> | Minor concerns due to poor reporting of reflexivity and evidence supporting findings in a few studies |
| <i>Coherence</i> | No or very minor concerns |
| <i>Relevance</i> | Major concerns as studies from only one context |
| <i>Adequacy</i> | No or very minor concerns |
| Overall CERQual assessment | |
| <i>Confidence</i> | Moderate confidence |
| Contributing studies | |
| Study | Context |
| Alba 2018 | USA, Parents of overweight and obese elementary school students, letter sent home from elementary school |
| Ayash 2012 | USA, Parents of children between the ages of 2 to 13 with a BMI above the 85 th percentile, face-to-face with pre or post letter preferences in primary care settings |
| Jorda 2017 | USA, parents who had received BMI referrals for their children in first, third or sixth grade and child was over the 95%, letter sent home from elementary school |
| Ruggieri 2013/2016 | USA, parents of children in grades K-8, letter home from elementary school |
| Schwartz 2010/2015 | USA, parents of children who had received a letter stating their child was overweight, letter from elementary school |



Questions or comments?

Healthcare guidelines – Where does qualitative evidence fit in?



Is the treatment *effective* and does it have *side-effects*?

How much will the treatment *cost*?

Will this treatment be *acceptable* to people?

Will this treatment be *feasible* to implement?

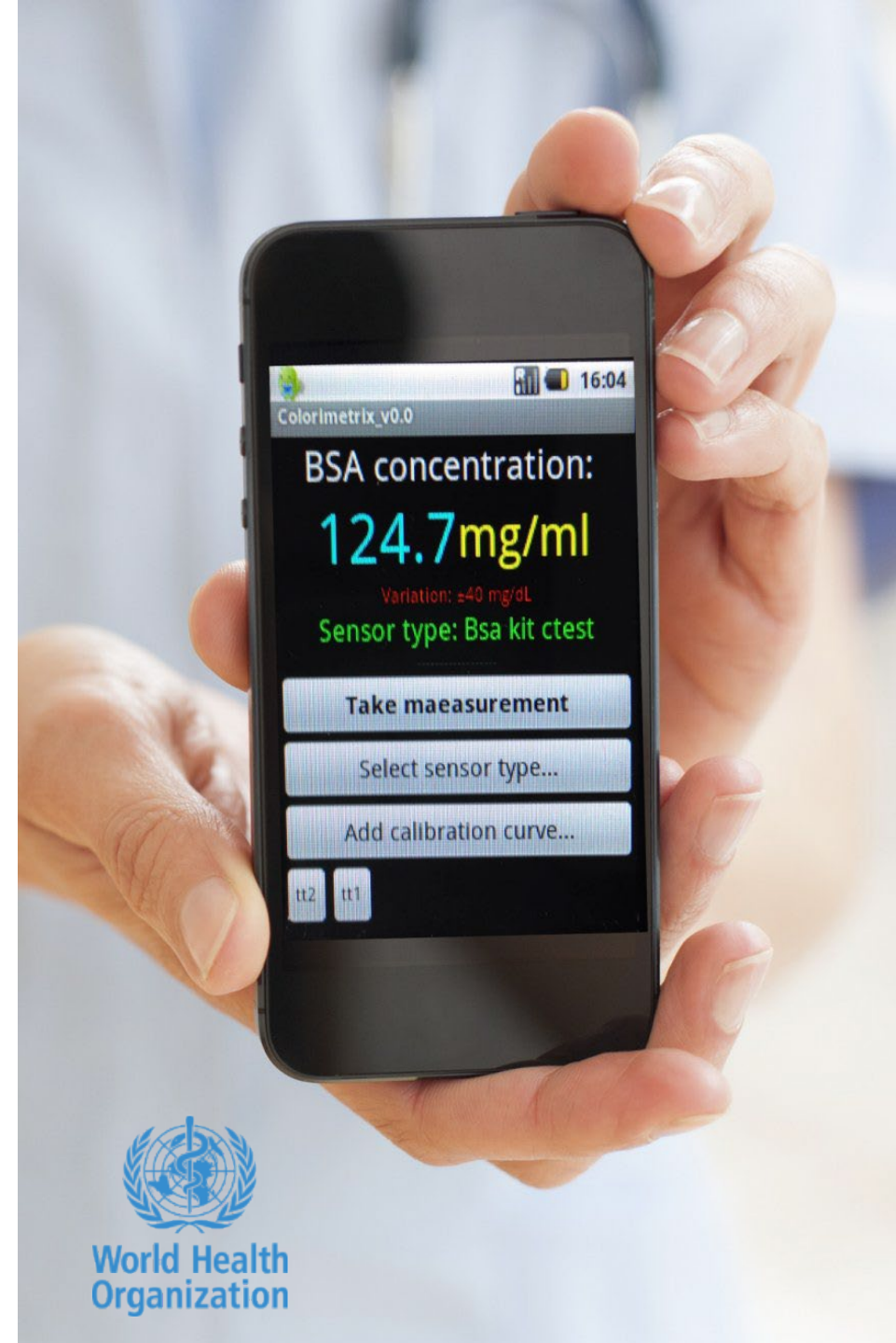
Will this treatment increase or decrease *equity*?

World Health Organization guidelines on digital health

Use of mobile phones for:

- **Communicating with patients and the public**
- Telemedicine
- Healthcare worker training
- Decision support for healthcare workers

Increasingly popular. But what should be recommended?



Targeted client communication via mobile phone: what effect does it have..

...on healthcare utilisation, health status, health behaviour?

Systematic review of effectiveness (Palmer et al 2018):

- Adolescents:
 - evidence of very low certainty or completely missing
- Other target groups: mixed effects / missing evidence:
 - probably some benefits for some outcomes
 - may make little or no difference to others
 - many outcomes - not measured or low certainty



Targeted client communication via mobile phone: Resource use

No systematic review commissioned.

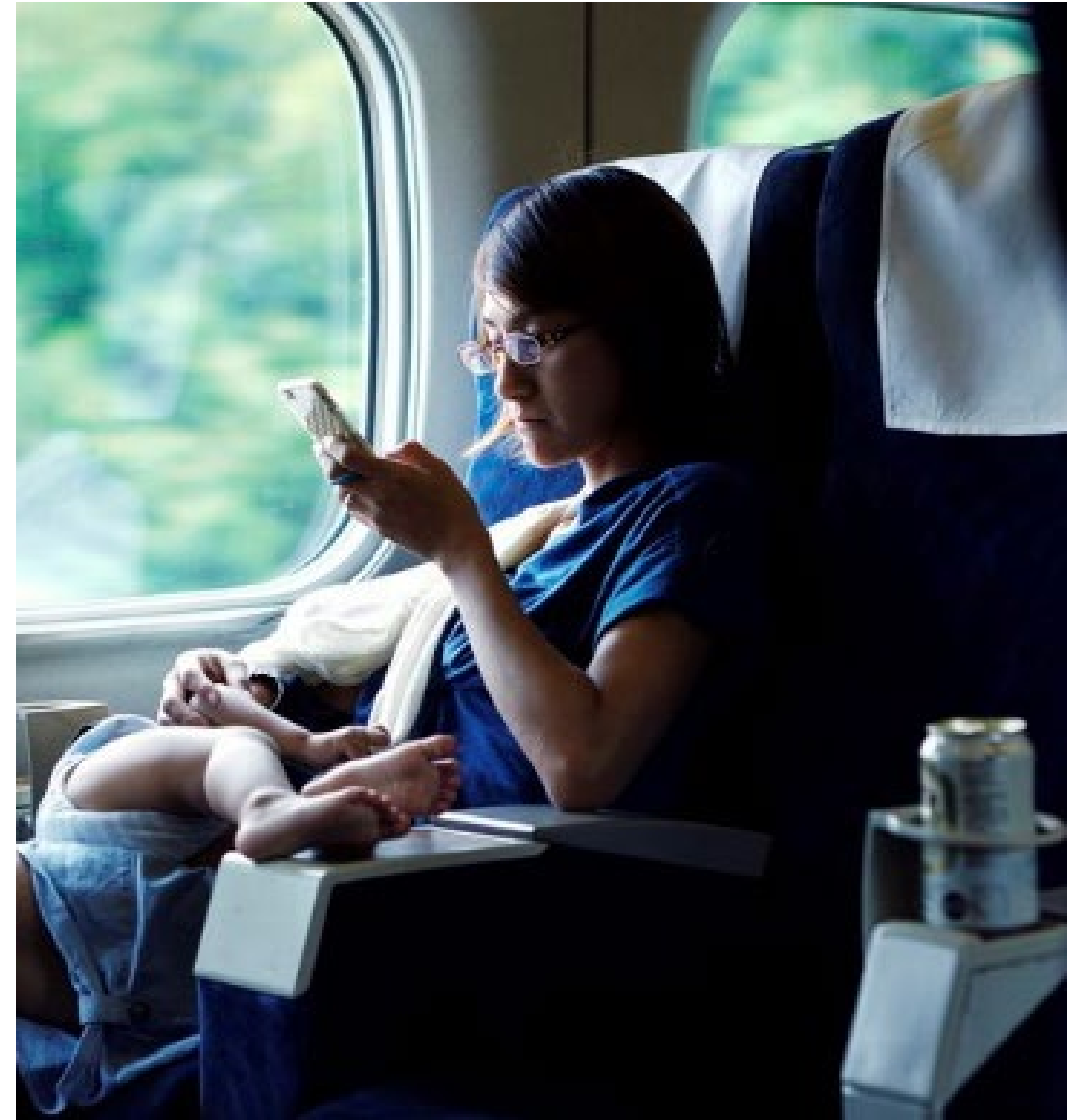
Information based on expert opinion:

- Large start-up costs and large recurring costs



Targeted client communication via mobile phone: do people find it **acceptable**?

- *Systematic review of qualitative research (Ames et al 2018):*
- Many clients **positive** to these services (moderate confidence):
 - Provides them with support and connectedness
 - Feels like someone is interested in their situation and cares about them
 - Gives a sense of direction, reassurance



Targeted client communication via mobile phone: do people find it acceptable?

- ...however, clients who are dealing with health conditions that are often stigmatised or very personal (e.g. HIV, family planning and abortion care) **worry that their confidential health information will be disclosed** (high confidence)



Targeted client communication via mobile phone: is it **feasible**?

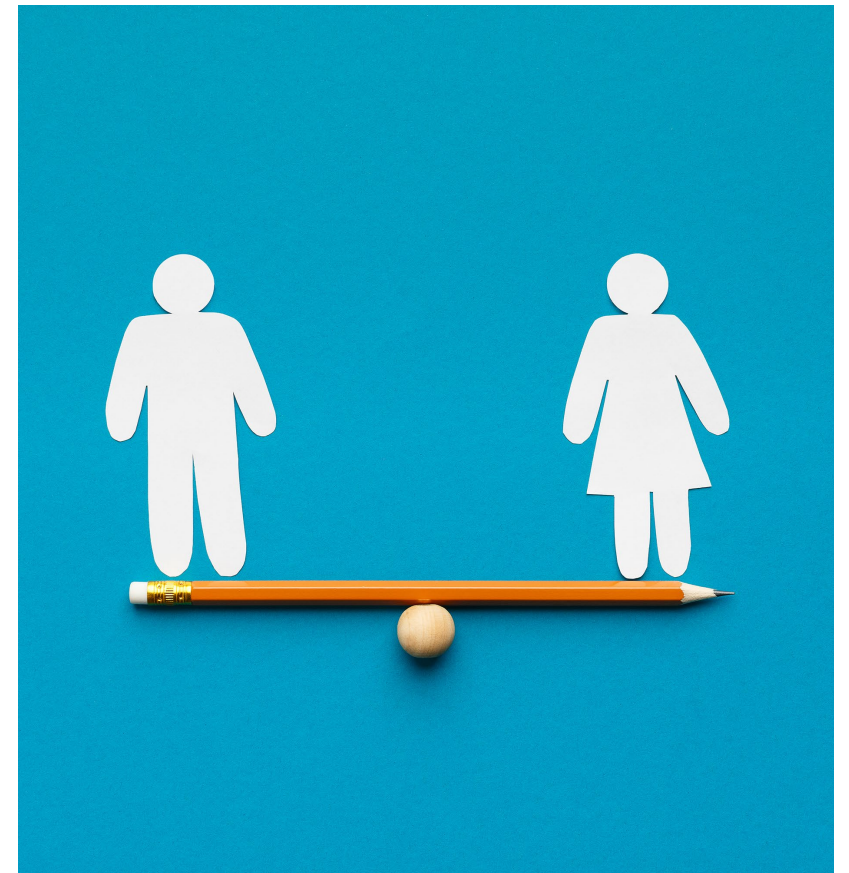
Systematic review of qualitative research (Ames 2018):

- Problems in many settings with network connectivity, access to electricity, system integration and device usability (*high confidence*)
- Problems with clients who regularly change their phone numbers or clients who have poor access to phones (*low confidence*)



Targeted client communication via mobile phone: what is the impact on health equity?

- ...access to these services may be particularly difficult for:
 - People with **poor access to network or electricity** (*high confidence*)
 - People with **stigmatised health conditions** (concern about confidentiality issues (*high confidence*))
 - People who speak **minority languages** or who have **low literacy skills or low digital literacy skills** (*moderate confidence*)
 - People with **poor access to mobile phones**, particularly **women and adolescents**, who have to share or borrow a phone or who have access to phones controlled by others (*moderate confidence*)



Making the recommendation

- The panel assessed the evidence:
 - Effectiveness unclear / mixed
 - Large costs
 - Widespread acceptability, but important conditions/exceptions
 - Feasibility challenges
 - Equity implications mixed



Targeted client communication via mobile phone: what did the panel recommend?

Conditional recommendation: The intervention was recommended under the condition that potential concerns about sensitive content and data confidentiality can be addressed.

Implementation considerations: Implementers should:

- secure data confidentiality and informed consent
- ensure access to network connectivity and electricity
- ensure that the content, format and delivery of information meets the needs of different target groups
- involve stakeholders in the design of the programme

Questions or comments

