

PEER-REVIEWED ARTICLE

What topics do public health nurses collaborate with schools on?

Sarah Sætra

Helsesykepleier
Grimstad kommune

Hanne Kolden

Helsesykepleier
Oslo kommune

Malene Brekke

Førstemanuensis
VID vitenskapelige høyskole og Regionsenter for barn og unges psykiske helse (RBUP)

Åse Sagatun

Seniorforsker
Regionsenter for barn og unges psykiske helse (RBUP), VID vitenskapelige høyskole

Cross-sectional study

Questionnaire

Interdisciplinarity

School health services

Schools

Sykepleien Forskning 2026;21(105617):e-105617

DOI: [10.4220/Sykepleienf.2026.105617en](https://doi.org/10.4220/Sykepleienf.2026.105617en)

Background: The national guidelines for child health centres and school health services include strong recommendations for collaboration with schools on areas such as teaching, the psychosocial environment, problematic school absenteeism and divorce support groups at individual, group and system level. Ensuring effective universal health promotion and prevention within school health services requires public health nurses to collaborate with schools at group and system level. However, research on this area is limited, and existing studies have mainly used qualitative methods.

Objective: The study aimed to map the areas of collaboration between public health nurses and school staff at individual, group and system level. We also examined whether the extent of

collaboration at these levels was associated with public health nurses' full-time equivalent (FTE), professional experience and office location within the school.

Method: The cross-sectional study included 49 public health nurses from schools in south-eastern and central Norway, and was conducted in autumn 2022 and 2023. Participants completed a digital questionnaire on collaboration with school staff covering 14 topics at individual, group and system level. We performed descriptive and linear regression analyses.

Results: On average, public health nurses collaborated with schools on 9.5 topics at individual level, 6.1 at group level and 4.8 at system level. The most common topics at individual level were 'problematic school absenteeism' (96%), 'bullying' (88%) and 'mental health and well-being' (80%). At group level, the most common topics were 'puberty, body and sexual health' (89%) and 'mental health and well-being' (76%). Between 30% and 40% reported collaboration at group level on health behaviours such as sleep, screen use, physical activity and diet. There was less collaboration at group level when public health nurses' offices were in close proximity to school staff. No association was found between the number of collaboration topics and public health nurses' FTE or years of experience.

Conclusion: Public health nurses collaborated with schools on more topics at individual than at group and system level. The findings suggest that several collaboration topics that are strongly recommended in the guidelines are still not well established in practice. Further research should examine both the quality and extent of collaboration at different levels to provide greater insight into how guideline recommendations on collaboration are applied in practice.

Introduction

There is increasing political focus on early intervention for children and young people, as well as on the need for a coordinated approach to supporting pupils (1). A Norwegian public health report from 2022–2023 describes school health services as one of the most important services for health promotion and prevention (2).

Primary and lower secondary schools serve as a universal setting for all children and young people, and public health nurses therefore play a key role in interdisciplinary collaboration at individual, group and system level (3).

The national guidelines for child health centres and school health services set the standard for practice and, since 2017, have included several strong recommendations on cooperation with schools. Effective collaboration can help create supportive environments for children's development and learning.

System-level collaboration, as recommended in the guidelines, is essential for school health services to fulfil their statutory and recommended responsibilities. Through system-level collaboration, measures are planned at the individual, group and system levels. The other recommendations address specific areas such as teaching, the psychosocial environment, problematic school absenteeism and divorce support groups (4).

Under current legislation, school health services are required to collaborate with schools (5, sections 4 and 6), while schools have an obligation ‘where collaboration is necessary to give pupils a comprehensive and coordinated service provision’ (6, section 15-8).

A large-scale quantitative study found that public health nurses collaborate with schools more at individual than at system level (7). Collaboration at the individual level, with an emphasis on individual problem-solving, is also described in qualitative research as the most common form of collaboration (8–10). Studies show that public health nurses prioritise individual follow-up when time is limited (8, 11).

Physical contextual factors, such as the location of a public health nurse’s office, can impact on perceived accessibility and, in turn, the collaboration with school staff (7, 12–13). A national survey from 2018 further showed that both the scope and content of system-level collaboration between public health nurses and schools varied considerably. The report suggested that the full-time equivalent (FTE) of public health nurses could potentially explain these differences (12).

Qualitative studies also highlight that stable relationships developed over time foster collaboration, whereas a lack of continuity due to absence or a high turnover of public health nurses may act as a barrier (13, 14).

Overall, these findings suggest that structural factors, such as FTE and physical accessibility, and relational factors, such as continuity and relationship-building, determine the quality of collaboration between school staff and public health nurses.

Objective of the study

Effective interdisciplinary collaboration with school health services can help foster school environments that support health promotion and prevention (1). Greater insight into collaborative practice is therefore needed to advance understanding of this field.

The objective of this study was to map the range of different topics in the collaboration between public health nurses and school staff, in relation to the recommendations in the national guidelines. We sought to answer the following research questions:

- What topics do public health nurses collaborate with school staff on at individual, group and system level?
- Is there an association between the number of collaboration topics at these three levels and public health nurses’ FTE, years of experience or office location within the school?

Method

We conducted a cross-sectional study using baseline questionnaire data from the ‘GuideMe’ intervention study (ISRCTN: 24173836). The GuideMe study aimed to evaluate SchoolHealth “, a tool designed to support the implementation of recommendations in the national guidelines for child health centres and school health services (15).

Sample

Public health nurses working in school health services were invited to participate in the study during either the 2022–2023 or 2023–2024 school year. Forty school health services were invited to information meetings, after which 26 services across various districts and municipalities agreed to take part in the study.

The school health services were first contacted through the service manager. If the manager agreed to participate, lower secondary schools in the municipality were then invited to take part. At schools where the headteacher agreed to participate, the public health nurse working at the school was invited to take part.

All public health nurses invited to participate agreed to do so. This corresponded to 49 lower secondary schools, with one public health nurse recruited from each school. The participating services represented both urban and rural municipalities in south-eastern and central Norway. The GuideMe study had no explicit inclusion or exclusion criteria, but public health nurses were required to have sufficient capacity to conduct health consultations with pupils in Year 8 (i.e. Year 1 of lower secondary school) (15).

Data collection

A digital questionnaire was distributed to public health nurses via text message and email. Data were collected at the start of the school year, with public health nurses from 15 schools responding in autumn 2022 and those from 34 schools responding in autumn 2023.

Variables

Characteristics of public health nurses and the service

Public health nurses answered questions on age (*years*), education level (*bachelor's degree in nursing with no postgraduate qualification/master's degree, postgraduate qualification in public health nursing (60/90 ECTS credits), master's degree in public health nursing or the equivalent*), FTE at the relevant lower secondary school (*continuous*), years of experience at the relevant lower secondary school (*years, months*) and location of the school health service's office.

Response options for office location were *in close proximity to the team room or administrative offices, within the school building but in a separate area from school staff, in a separate building on the school site, or other (please specify)*.

Topics for collaboration at different levels

Public health nurses were asked about the collaboration with school staff across 14 topics at individual, group and system level.

The questions included clarification that individual level refers to collaboration related to individual pupils, group level refers to collaboration in small group or classroom settings, while system level covers collaboration at a more overarching level with teachers or school leadership. There was also an open-ended category, *other*, which allowed public health nurses to specify other topics.

All questions were developed by researchers in the GuideMe study, based on areas in which the national guidelines recommend collaboration between school health services and schools, as well as topics to be covered in health consultations in Year 8. Public health nurses from clinical practice provided input for the wording of the questions.

Analyses

Background variables are described using frequency distributions and percentages (Table 1). Collaboration topics at the different levels are summarised using frequency distributions and presented in a bar chart (Figure 1).

The number of collaboration topics at individual, group and system level was analysed using frequency distribution, mean and standard deviation. Linear regression was used to examine the association between the number of collaboration topics (dependent variable) and FTE, years of experience and office location (independent variables) (Table 2).

Q-Q plots were used to establish whether residuals in the regression models were approximately normally distributed. The variables for the number of collaboration topics at individual, group and system level were constructed from the 14 collaboration topics.

Office location was recoded as a binary variable (*in close proximity* = 1, *not in close proximity* = 0). Results are presented with 95% confidence intervals, and statistical significance was set at $p < 0.05$. Analyses were conducted using IBM SPSS version 29, and figures were produced using Microsoft Excel version 2401.

Ethics

The GuideMe study was reviewed by Sikt – Norwegian Agency for Shared Services in Education and Research (reference number 694124). All participants received written information about the study, which clearly stated that participation was voluntary. Informed consent was obtained electronically. Participants were free to withdraw from the study at any time without giving a reason. We did not have access to any information that could link responses to individual respondents.

Results

Respondent characteristics

Table 1 presents the background characteristics of the public health nurses. The mean age was 44 years. On average, they had worked at the relevant lower secondary school for 3 years

and 11 months. Seventy-eight per cent had 0–5 years of experience and the mean FTE at the relevant school was 72%.

Regarding office location, 32 public health nurses (65%) were in close proximity to school staff and 17 (35%) were not.

Table 1. Respondent characteristics

Background variables	n (%)
Age	
25–35 years	10 (20%)
36–45 years	19 (3%)
46–55 years	12 (25%)
56–65 years	8 (1%)
Level of education	
Bachelor's degree in nursing with no postgraduate qualification/master's degree	2 (4%)
Postgraduate qualification in public health nursing (60–90 ECTS credits)	41 (84%)
Master's degree in public health nursing (or equivalent)	6 (12%)
Years of experience in lower secondary schools	
0–5 years	38 (78%)
6–10 years	7 (14%)
11–15 years	2 (4%)
16–20 years	1 (2%)
> 21 years	1 (2%)
FTE at relevant lower secondary school	
20–40%	10 (20%)
41–60%	8 (16%)
61–80%	14 (29%)
81–100%	17 (35%)

Abbreviation: ECTS = European Credit Transfer and Accumulation System, FTE = full-time equivalent

Collaboration topics at individual, group and system level

Individual level

The most frequently reported collaboration topics at individual level were 'problematic school absenteeism' (n = 47, 96%), 'bullying' (n = 43, 88%), 'parental separation' (n = 42, 86%), 'mental health and well-being' (n = 39, 80%) and 'school functioning' (n = 39, 80%).

The least frequently reported topic was 'physical environment at school' (n = 14, 29%). More than half of the public health nurses reported collaborating on the remaining eight topics (Figure 1). Overall, public health nurses collaborated with school staff on an average of 9.5 topics (standard deviation [SD]: 3.75) at the individual level.

Group level

The most frequently reported collaboration topic at group level was 'puberty, body and sexual health' (n = 44, 90%), followed by 'mental health and well-being' (n = 37, 76%).

The least frequently reported topic was 'parental separation' (n = 7, 14%). Between 30% and 40% reported collaboration at group level on health behaviours such as sleep, screen use, physical activity and diet (Figure 1). Public health nurses collaborated on an average of 6.1 topics (SD: 3.89) at the group level.

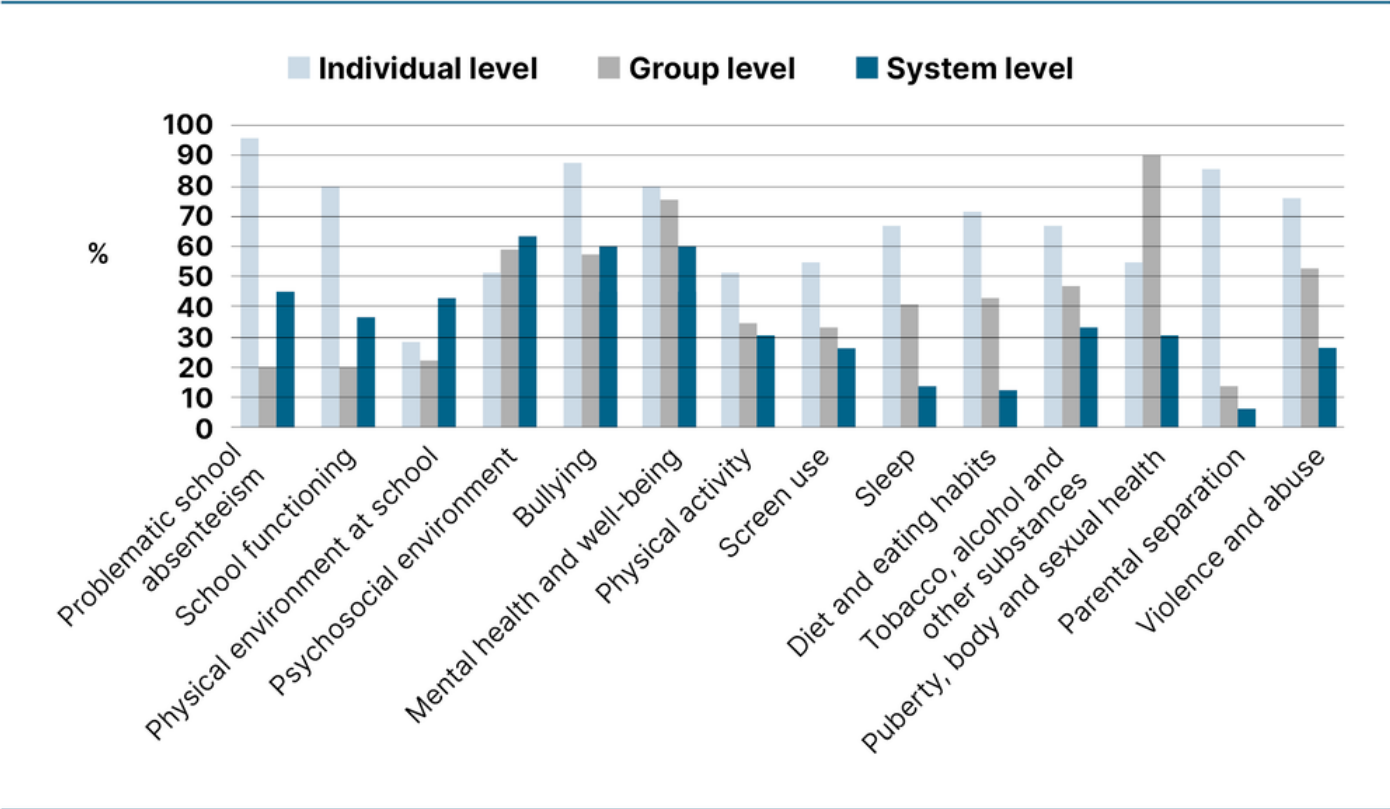
System level

'Psychosocial environment' (n = 31, 63%) was the most frequently reported topic at system level, followed by 'bullying' (n = 29, 59%) and 'mental health and well-being' (n = 29, 59%). The least frequently reported topic was 'parental separation' (n = 3, 6%).

For 11 of the remaining topics, fewer than half of the public health nurses reported collaborating at system level. 'Psychosocial environment' and 'physical environment at school' were the only two topics for which more respondents reported collaboration at system level than at individual and group level (Figure 1).

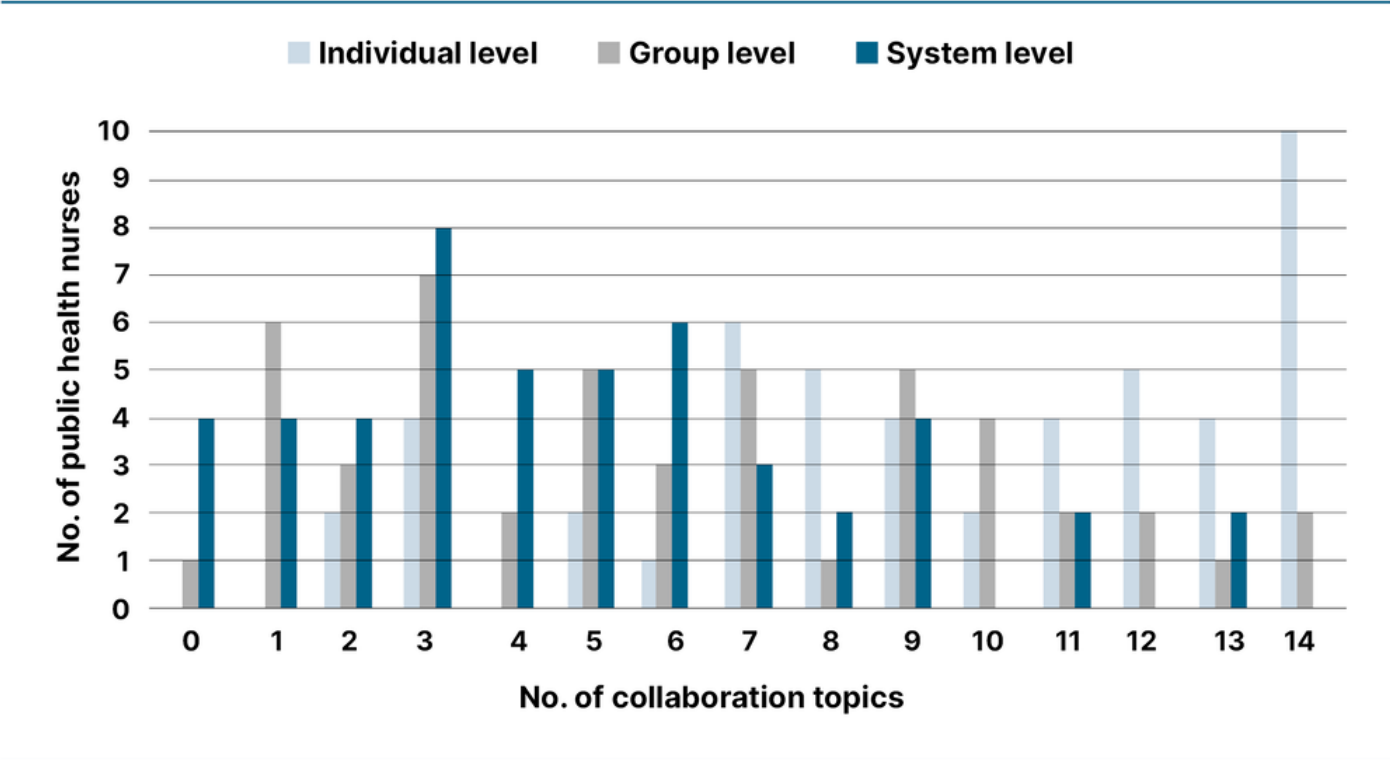
Public health nurses collaborated on an average of 4.8 topics (SD: 3.34) at the system level.

Figure 1. Percentage distribution of collaboration topics



Overall, the public health nurses collaborated with schools on more topics at individual level than at group and system level (Figure 2). At system level, none reported collaboration across all 14 topics, and four (8%) reported no collaboration at this level.

Figure 2. No. of topics that public health nurses collaborate with schools on



Association between number of collaboration topics at different levels and FTE, years of experience and office location

On average, public health nurses whose office was in close proximity to school staff collaborated on 3.4 fewer topics at group level than those who were not in close proximity ($p = 0.002$) (Table 2). There was no statistically significant association between the number of collaboration topics at individual or system level and 'FTE', 'office location' or 'years of experience' at the school.

Q-Q plots of the residuals showed no material deviation from normal distribution at either group or system level. At the individual level, there was some clustering of larger residuals, but this was within acceptable limits.

Table 2. Association between the number of collaboration topics and FTE, years of experience and office location

	B*	Confidence interval		P-value
No. of topics at individual level				
FTE	-0.019	-0.016	0.022	0.349
Years of experience	0.091	-0.180	0.362	0.504
Office location (ref. not in close proximity)	-0.210	-2.499	2.080	0.855
No. of topics at group level				
FTE	-0.011	-0.054	0.032	0.617
Years of experience	0.093	-0.188	0.374	0.508
Office location (ref. not in close proximity)	-3.447	-5.594	-1.299	0.002**
No. of topics at system level				
FTE	0.029	-0.007	0.066	0.111
Years of experience	0.036	-0.206	0.278	0.766
Office location (ref. not in close proximity)	-0.849	-2.873	1.174	0.403

*B = unstandardised regression coefficient

**P = < 0.05

Simple linear regression. Dependent variable: number of collaboration topics at individual, group and system level. Independent variables: FTE, years of experience and office location.

Discussion

Mental health, bullying and psychosocial environment – collaboration across levels

Public health nurses reported extensive collaboration with schools at the individual, group and system levels on mental health and well-being, bullying and the psychosocial environment.

These topics overlap to some extent and correspond to those identified as common areas of collaboration in previous research (8–10). Mental health problems and disorders are also described as ‘common’ among children and young people (16).

The study by Reuterswärd and Hylander (10) suggests that public health nurses prioritise urgent tasks. Our findings indicate that collaboration is most extensive on topics such as mental health and bullying. These are issues that may require rapid action to prevent negative consequences for pupils’ health and well-being at school (1, 3).

Public health nurses often prioritise tasks perceived as acute, with a lesser focus on primary prevention (9). Efforts in primary prevention and health promotion are often perceived as more diffuse, as their effects are more long-term and difficult to measure (17).

School health services currently lack the resources needed for public health nurses to focus on collaboration and the follow-up of individual pupils experiencing these types of problems (18). Follow-up of mental health problems is regarded as secondary- and tertiary-level prevention (3, 9). Traditionally, the nursing profession has focused on individuals, with care for the individual at its core (19, 20).

Public health nursing, however, differs in that it is more oriented towards groups and systems, with the aim of preventing problems and promoting health across the wider population. Public health nurses therefore have to balance individual follow-up with health promotion efforts at the group and system levels. This balancing act can challenge established roles and priorities within nursing, which has traditionally placed greater emphasis on individual care (20).

This focus on care for individual adolescents can create ethical dilemmas, as prioritising primary prevention and health promotion efforts with the potential to benefit many pupils may come at the expense of supporting individuals facing immediate challenges (17).

Public health nurses therefore work at the intersection of individual needs and structural and group-based interventions. Nevertheless, our findings suggest that individual-level work continues to take precedence. This raises important questions about priority-setting and capacity within school health services, as well as the need for measures and tools that can foster collaboration across multiple levels simultaneously (21).

Collaboration is predominantly at the individual level

Many public health nurses reported collaboration on problematic school absenteeism and school functioning at the individual level. Fewer, however, reported collaboration on these issues at the group or system level, despite guidelines recommending system-level measures such as routines and structures for identifying and following up absenteeism (4). Where absenteeism is due to school-related factors, health consultations at the individual level may have a limited effect (18).

This is consistent with previous findings and broader challenges in public health work, where individual follow-up has often been prioritised at the expense of primary prevention efforts,

potentially limiting opportunities for early identification and broader prevention (17).

This could mean, for example, that preventive efforts place less focus on the pupil's psychosocial environment and that problematic school absenteeism is identified at a later stage. System-oriented collaboration may include systematic registration of absenteeism and more rapid implementation of measures for these pupils (4).

For topics related to health behaviours, such as physical activity, screen use, sleep, diet and eating habits, and the use of tobacco, alcohol and other substances, collaboration was also predominantly at the individual level. Some collaboration at the group level was reported, but far less at the system level (22).

Although it is natural for health behaviours to be addressed in health consultations at the individual level, increasing the focus at group and system level could potentially reach more pupils, free up time for other work and have a greater impact, as young people are heavily influenced by their social context (22).

A 2025 study found that public health nurses spend only 2.1% of their time teaching in classroom or group settings (23). This finding suggests an untapped potential for developing structured teaching plans and establishing routines that promote healthy behaviours among large groups of pupils.

Teaching pupils about puberty, body and sexual health is a high priority

Nearly all public health nurses in our study collaborated with schools at the group level on puberty, body and sexual health. This finding appears to be consistent with other studies (12, 24) as well as a recent national survey suggesting that public health nurses perceived collaboration on sexual and mental health as the school's highest priority (7).

The regulation on health promotion (5) and the national guidelines for child health centres and school health services (4) strongly recommend that public health nurses provide as much education on these topics as the school requests. The prioritisation of this topic by schools, together with its anchoring in the statutory framework for school health services, may partly explain why the majority of public health nurses collaborated on this at the group level.

Little collaboration reported on 'divorce support groups'

Few public health nurses reported group-level collaboration with schools on parental separation, despite specific recommendations and available tools for group-based sessions on this topic (4). Much of the collaboration on parental separation takes place at the individual level. A 2017 survey showed that approximately half of public health nurses offered group sessions for pupils who had experienced parental separation (12).

The introduction of national guidelines for child health centres and school health services in 2017 led to an expanded remit and more clearly defined recommendations (25).

'Divorce support groups' are given a weak recommendation in the guidelines, which means it is uncertain whether the benefits outweigh the disadvantages, and that implementation of the measure must be assessed in light of the individual situation. This weak recommendation, together with the lack of free access to standardised tools, may have contributed to the measure being deprioritised.

Challenges in public health nurses' collaboration at different levels

On average, public health nurses collaborated on 4.8 topics at the system level, 6.1 topics at the group level and 9.5 topics at the individual level. All identified topics are relevant to Year 8 and to the guidelines' 14 recommendations on cooperation with schools. We can therefore assume that the number of collaboration topics, particularly at the system level, is lower than recommended in the guidelines for school health services (4).

Many public health nurses think the guideline recommendations are unclear (24). Knowledge is also limited on how system-level collaboration is actually carried out in practice, and which strategies might be most effective (21).

Several studies show that public health nurses want to work in health promotion and prevention, but many are hesitant to implement measures because they do not feel that their professional competence is recognised or that they receive adequate support from schools (10, 14). Others point out that they need to be visible in order to be included and recognised as collaborative partners within the school setting (11, 12).

The guidelines for school health services emphasise that public health nurses should initiate collaboration where this has not already been established, in order to be able to carry out their statutory duties (4).

System-level collaboration initiated by a public health nurse can be challenging, as the education sector does not always regard health as part of its remit (26). In 2018, a new provision was introduced in the Education Act (section 15-8), requiring schools to collaborate with other services when necessary in order to ensure a comprehensive service for pupils (4). However, this legislative change did not establish a requirement for systematic collaboration with school health services. It can therefore be difficult for public health nurses to establish a position from which they can collaborate with schools and thereby comply with guideline recommendations.

In a cross-sectional study of public health nurses, half of respondents reported having meetings with school leadership, while 36% reported having meetings with other school staff. Only 16% participated in school planning days (24).

As collaboration with school health services is not legally mandated, the power balance between schools and school health services can be asymmetrical, leaving public health nurses dependent on schools recognising the value of, and actively seeking, their expertise in health promotion and prevention (27).

This imbalance may partly explain the challenges in establishing group-based measures, as implementation requires close coordination and collaboration with schools.

Variation in collaboration topics by office location

An interesting finding in the study was that public health nurses whose offices were in close proximity to school staff reported collaboration on 3.4 fewer topics at the group level. This finding is in contrast to previous research showing that close proximity to school staff can facilitate collaboration (12, 13).

One possible explanation is that proximity leads to more informal requests concerning individual pupils, which in turn reduces time available for group-based measures. This finding may also reflect a culture in which public health nurses tend to be used more as an ad hoc resource for individual problems rather than as a partner in planned group-based initiatives.

However, this finding only elucidates the actual collaboration topics, not the number of pupils involved or the quality of the collaboration. Furthermore, the confidence interval for the regression coefficient is relatively wide. The practical significance of the lower number of group-level collaboration topics should therefore be interpreted with caution.

The results showed no significant association between the number of collaboration topics at the individual, group or system levels and the nurses' FTE or years of experience. Public health nurses call for concrete measures and tools to help them apply the guidelines, which are often perceived as unclear and lacking in practical detail (8, 24).

This finding suggests that neither a higher FTE nor extensive experience alone is sufficient to increase the number of collaboration topics.

The fact that individual factors do not appear to impact on collaboration suggests that the challenges are more likely to be structural rather than attributable to individual public health nurses. This underscores the need for clearer guidance and frameworks to support systematic and mandated interdisciplinary collaboration with schools.

Strengths and limitations of the study

The sample comprised 49 public health nurses from various urban and rural schools, with a relatively similar age and educational background to public health nurses in a recent cross-sectional study (25, 28).

However, generalising the findings should be done with caution, as the respondents in the GuideMe intervention study may represent a biased sample. School health services participating in GuideMe may have a stronger focus on collaboration with schools than those that did not participate.

The study did not investigate whether other healthcare personnel in school health services, such as doctors, physiotherapists or occupational therapists, collaborated with schools on

other topics. The sample size was relatively small, which may have reduced statistical power and increased the risk of type II errors, as well as limited the generalisability of the findings to other school health services.

A minority of participants ($n = 2$, 4%) did not have formal public health nursing qualifications and had limited experience in school health services. This may have introduced some variation in perspectives on collaboration, but the proportion is considered too small to have influenced the main patterns in the data. These factors should therefore be taken into account when interpreting the results.

Another methodological factor that may have impacted on the results is that the questionnaire items were not validated, although they were developed by researchers with extensive expertise in the field. Variations in how different concepts are interpreted may have affected the study's validity.

For example, individual understandings of the term 'collaboration' can differ, and a definition in the questionnaire might have been beneficial. To minimise the risk of inconsistent interpretation, the questionnaire included descriptions of the different levels of collaboration: individual, group and system.

A further limitation is that the study design does not provide a basis for causal inferences to be drawn from the linear regression analyses. Nor did the study account for other potential confounding factors, such as the extent and quality of collaboration. The findings should therefore be interpreted with caution.

Conclusion

The study provides valuable insight into the topics and levels of collaboration between public health nurses and school staff. The findings suggest that public health nurses do not fully adhere to the recommendations in the national guidelines for child health centres and school health services on collaboration with schools at group and system level.

Group-level teaching on puberty and mental health was most common, while topics such as parental separation and health behaviours were less frequently addressed beyond the individual level. Public health nurses whose offices were in close proximity to school staff reported fewer collaboration topics at group level than those located further away.

Further research should examine both the quality and extent of collaboration between school health services and schools. This should include teachers' perspectives and explore factors that can foster collaboration. An important next step may be to assess whether current legislation and guidelines place a sufficient duty on schools to collaborate, particularly at the system level.

Interdisciplinary collaboration in schools should be clearly anchored in formal structures, with shared responsibility, rather than being dependent on individual initiative.

The study also highlights the need for further development of standardised teaching plans and group activities to strengthen collaboration at group and system level within school health services. This may help ensure that efforts in health promotion and prevention reach a larger number of pupils.

Sarah Sætra and Hanne Kolden share first authorship.

The authors declare no conflicts of interest.

Open access [CC BY 4.0](#)



DIFFERENCES BETWEEN INDIVIDUAL AND GROUP LEVEL: At the individual level, most public health nurses focus on problematic school absenteeism and bullying in the collaboration with schools. At group level, the focus is on puberty, body and sexual health. *Illustration photo: Johner/NTB*

1. Meld. St. 6 (2019–2020). Tett på – tidlig innsats og inkluderende fellesskap i barnehage, skole og SFO [Internet]. Oslo: Kunnskapsdepartementet; 2019 [cited 24 April 2024]. Available from: <https://www.regjeringen.no/contentassets/3dacd48f7c94401ebefc91549a5d08cd/no/pdf>
2. Meld. St. 15 (2022–2023). Folkehelsemeldinga: Nasjonal strategi for utjamning av sosiale helseforskjellar [Internet]. Oslo: Helse- og omsorgsdepartementet; 2023 [cited 24 April 2024]. Available from: <https://www.regjeringen.no/contentassets/918eb71926fc44c8802fe3c2e0b9a75a/nn-no/pdfs/stm202220230015000dddpdfs.pdf>

3. Glavin K, Erdal B. Tverrfaglig samarbeid i praksis: Til beste for barn og unge i Kommune-Norge. 4th ed. Oslo: Kommuneforlaget; 2018.
4. Helsedirektoratet. Nasjonal faglig retningslinje for helsestasjon, skolehelsetjeneste og helsestasjon for ungdom [Internet]. Oslo: Helsedirektoratet; 2017 [cited 7 April 2024]. Available from: <https://www.helsedirektoratet.no/retningslinjer/helsestasjons-og-skolehelsetjenesten>
5. Forskrift om kommunens helsefremmende og forebyggende arbeid i helsestasjons- og skolehelsetjenesten. FOR-2018-10-19-1584 [cited 7 April 2024]. Available from: <https://lovdata.no/dokument/SF/forskrift/2018-10-19-1584>
6. Lov om grunnskolen og den vidaregåande opplæringa (opplæringslova). LOV-2023-06-09-30 [cited 7 April 2024]. Available from: <https://lovdata.no/dokument/LTI/lov/2023-06-09-30>
7. Nitter C, Sollesnes R, Litland A, Musland MG, Leversen I. En nasjonal kartlegging blant helsesykepleiere om samarbeid med skole og barnehage [Internet]. Bergen: Høgskulen på Vestlandet; 2023 [cited 23 March 2026]. HVL report 5. Available from: <https://kudos.dfo.no/dokument/f4098d97-6b9c-4122-9b7c-3778a85ead78/filer/85da7322-719b-4bf0-a0d4-91e243bd648a.pdf>
8. Dahl BM, Glavin K, Teige AM, Karlsen AG, Steffenak AKM. Norwegian public health nurses' competence areas. Publ Health Nurs. 2022;39(5):1048–57. DOI: [10.1111/phn.13083](https://doi.org/10.1111/phn.13083)
9. Dahl BM, Clancy A. Meanings of knowledge and identity in public health nursing in a time of transition: interpretations of public health nurses' narratives. Scand J Caring Sci. 2015;29(4):679–87. DOI: [10.1111/scs.12196](https://doi.org/10.1111/scs.12196)
10. Reuterswärd M, Hylander I. Shared responsibility: school nurses' experience of collaborating in school-based interprofessional teams. Scand J Caring Sci. 2017;31(2):253–62. DOI: [10.1111/scs.12337](https://doi.org/10.1111/scs.12337)
11. Dahl BM, Crawford P. Perceptions of experiences with interprofessional collaboration in public health nursing: a qualitative analysis. J Interprof Care. 2017;32(2):178–84. DOI: [10.1080/13561820.2017.1386164](https://doi.org/10.1080/13561820.2017.1386164)
12. Waldum-Grevbo KS. Helsesøster: Følger du de nye, nasjonale anbefalingene? Sykepl Forsk. 2018;106(70773):e-70773. DOI: [10.4220/Sykepleiens.2018.70773](https://doi.org/10.4220/Sykepleiens.2018.70773)
13. Helleve A, Midthassel UV, Federici RA. Finding the balance between collaboration and autonomy among school nurses in interactions with schools. J Sch Nurs. 2022;38(2):184–93. DOI: [10.1177/1059840520918924](https://doi.org/10.1177/1059840520918924)
14. Granrud MD, Anderzen-Carlsson A, Bisholt B, Steffenak AKM. Public health nurses' perception of interprofessional collaboration related to adolescents' mental health problems in secondary schools: a phenomenographic study. J Clin Nurs. 2019;28(15–16):2899–910. DOI: [10.1111/jocn.14881](https://doi.org/10.1111/jocn.14881)

15. Sagatun Å, Engell T, Brekke M, Sjølie H, Ekornes SM, Waldum-Grevbo KS, et al. Guideline evaluation an implementation mechanism in school health services (GuideMe): protocol for a hybrid randomized factorial trial. BMC Health Serv Res. 2023;23(1):1259. DOI: [10.1186/s12913-023-10179-2](https://doi.org/10.1186/s12913-023-10179-2)
16. Folkehelseinstituttet. Folkehelserapporten [Internet]. Oslo: Folkehelseinstituttet; 2024 [cited 14 April 2024]. Available from: <https://www.fhi.no/he/folkehelserapporten/?term=>
17. Garsjø O. Forebyggende og helsefremmende arbeid: fra individ- til systemorientert tenkning og praksis. Oslo: Gyldendal Akademisk; 2018.
18. Haugland S. Skolehelsetjenesten: en unik posisjon. In: Klepp KI, Skogen JC, Aarø LE, eds. Ungdom, livsstil og helsefremmende arbeid: folkehelsearbeid for og med ungdom. 5th ed. Oslo: Gyldendal Akademisk; 2023. p. 370–84.
19. Kirkevold M. Sykepleieteorier: analyse og evaluering. 2nd ed. Oslo: Gyldendal; 1998.
20. Samdal GB. Sykepleiere må ha kunnskap om helsefremmende arbeid på individ- og samfunnsnivå. Sykepleien. 2021;109(86988):e-86988. DOI: [10.4220/Sykepleiens.2021.86988](https://doi.org/10.4220/Sykepleiens.2021.86988)
21. Folkehelseinstituttet. Barn og unges psykiske helse [Internet]. Oslo: Folkehelseinstituttet; 2025 [cited 10 June 2025]. Available from: <https://www.fhi.no/he/fr/barn-og-unges-psykiske-helse/>
22. Aarø LE, Åstrøm AN, Klepp KI. Hva former ungdoms helserelaterte atferd? In: Klepp KI, Skogen JC, Aarø LE, eds. Ungdom, livsstil og helsefremmende arbeid: folkehelsearbeid for og med ungdom. 5th ed. Oslo: Gyldendal Akademisk; 2023. p. 148–65.
23. Hustad G, Bortoli MMD, Hansen EH. How do school nurses spend their time? A quantitative time study within Norwegian school health services. BMC Nurs. 2025;24(531). DOI: [10.1186/s12912-025-03206-6](https://doi.org/10.1186/s12912-025-03206-6)
24. Hustad G, Bortoli MMD, Hansen EH. Working in the Norwegian school health services: a quantitative cross-sectional study of school nurses' work situation. J Sch Nurs. 2025;24:10598405251327913. DOI: [10.1177/10598405251327913](https://doi.org/10.1177/10598405251327913)
25. Lassemo E, Melby L. Helsesykepleiere i helsestasjons- og skolehelsetjenesten. Status, utvikling og behov [Internet]. Trondheim: Sintef Digital; 2020 [cited 14 April 2024]. Sintef-rapport 01346. Available from: https://www.sintef.no/globalassets/sintef-digital/helse/2020_01346_rapport-part-1---signert.pdf
26. Mæland JG. Forebyggende helsearbeid: Folkehelsearbeid i teori og praksis. 5th ed. Oslo: Universitetsforlaget; 2021.
27. Lauvås K, Lauvås P. Tverrfaglig samarbeid: perspektiv og strategi. 2nd ed. Oslo: Universitetsforlaget; 2004.

28. Helsedirektoratet. Kompetanseløft 2020. Personell og kompetanse i den kommunale helse- og omsorgstjenesten [Internet]. Oslo: Helsedirektoratet; 2021 [cited 21 April 2024]. Available from: https://www.helsedirektoratet.no/rapporter/personell-og-kompetanse-i-den-kommunale-helse-og-omsorgstjenesten/pdf-versjon-av-rapporten/Personell%20og%20kompetanse%20i%20tjenestene.pdf/_/attachment/inline/859c918464-4cb2-a346-c13ac01e7ce7:5428c7262092d177ba491dff24cba96d5b4f2b32/Personell%20og%20kompetan