

Is shared primary and mental health care better than current practice for people with mental and comorbid illnesses? Cluster randomized trial

1.Relevance relative to the call for proposals

Research on challenges in collaboration in health care for mental health: The model of shared care brings together the various services needed for comprehensive and concurrent collaboration for a large proportion of general practitioners (GP) patients with mental health problems, as well as comorbid illnesses. There is a great variation in such collaboration with unknown effect, and a lack of knowledge from rigorous research on characteristics of effective collaboration.

Research on projects contributing to innovation in the health services: The project supports and will assess the effect of adapting an innovative Canadian model for close collaboration in the context of Norwegian health services. This may help putting the Collaboration reform into practice in Norway and provide examples that can be adopted by other specialties interested in working more closely with primary care.

Interaction with the health services: The project will use register data extracted in collaboration with the local health services involved, together with data from service users and health workers. The data will be used to analyse how services function and collaborate, and individual results will be given to each service, which they may use in improving their practice and local collaboration.

Research on design, composition and organisation of preventive health services: By making novel mental health interventions easier accessible for a large group of GP patients, the model of shared care may provide preventive or early intervention for many patients where emerging mental problems has not yet been recognised or manifest through symptoms. Easier access may also shorten waiting time, and close collaboration may increase competence in early detection by GPs.

2.Aspects relating to the research project

Objectives

To demonstrate the feasibility and impact of shared care on patient experiences and outcome, waiting times and the capacity to better handle the mental health problems at an early stage within primary care. Shared care means a Norwegian adjusted model of the Family Health Team model developed in Hamilton, Canada, where GPs, clinicians and other professionals from primary care and specialized mental health care working together as a team co-located in primary care. The adjusted model of shared care will be tested against current practice in a cluster randomized trial.

Work packages (WPs)

WP1 will investigate current practice and areas for improvement of services and collaboration, based on data extracted from the electronic registers in the collaborating services and on survey data from patients and health care workers.

WP2 will be done by the collaborating services supported by the research group. The Family Health Team model of shared care will be adjusted to the Norwegian context, based on results of WP1 and a study visit to Canada. Then the adjusted model will be implemented, and the implementation process and facilitators and barriers for implementation will be investigated.

WP3 will compare implemented shared care to current practice regarding access to services, distribution of patients, patient experiences and outcome, and distribution of tasks and competences. We will use a difference-in-difference model with randomised clustering of GPs regarding shared care or current practice.

The research group has received financial support from the Regional Health Authority in South-Eastern Norway to initiate this research on shared care, and this money will cover WP2 and parts of WP1. (See attached pdf-file with budget). This application is for a PhD research fellow for WP1 and a postdoc research fellow for WP3, and some support for data collection in WP3.

2.1. Background and status of knowledge

Definition and potential advantages of shared care

Kates et al (2011a) define collaborative mental health care as “care that is delivered by providers from different specialties, disciplines, or sectors working together to offer complementary services and mutual support. As in any effective partnership, common goals, clear and equitable decision making, and open and regular communication are keys.”

Effective collaboration is essential both within and between primary care, mental health care and substance abuse care. Lack of coordination between health care levels has, however, been pointed out repeatedly by consumer organizations and health authorities. In Norway, primary care and GPs are funded through municipalities/boroughs and specialised mental health care through state owned health authorities. This split and the activity based financing in both primary care (GPs) and specialist care adds to the challenges of collaboration. This also creates selection problems because both hospitals and GPs will have (financial) incentives to attract profitable patients (cream- skimming) and to skimp and/or dump unprofitable patients by referring them to the other health care level.

Current knowledge regarding shared care

Research-based knowledge about the effect of shared care is inconclusive. A Cochrane review by Smith et al. (2009) concluded that there was insufficient evidence to demonstrate significant benefits from shared care apart from improved prescribing. In another Cochrane review (Harkness and Bower 2009) the effects of on-site delivered psychological therapy to patients in primary care resulted in reductions in primary care provider consultations, prescribing costs, and rates of mental health referrals. However, the changes were modest and inconsistent resulting in unclear clinical or economic significance of the results. A review conducted by Butler et al. (2011) concluded that integrated care appeared to improve depression management in primary care patients, but not necessarily symptom improvement.

Research on collaboration has mainly been in the area of depression and anxiety, and then primarily on simpler models of collaboration between two parties, usually a doctor and nurse (Hviding et al. 2008, Craven et al 2006) or between a therapist and a GP (von Orden et al. 2009). Some of the most important factors in the collaboration between health care seems to be the establishment of collaborative relationships, shared goals, a structured organization of collaboration, and co-location or close physical proximity of collaborators (Seaburn et al. 1996).

The general practitioner (GP) is a key person in primary care (Lampe et al 2012), including for mental health. Most referrals to specialized health services are done by the GP, and the GP is also important in referring to and collaborating with primary mental health care in the municipality. There is great variation in how GPs work with mental illness, partly depending on their interest, but also depending on the support the GP may receive from other professionals and services (Fleury et al 2012a, 2012b). In Norway the field of primary mental health care with teams of mental health workers has been extensively developed during the last 10-15 years, but there seems to be a large variation in the degree of collaboration between GPs and these primary mental health care teams.

According to user organizations, the lack of collaboration is an important area for improvement, as both patients and their families frequently experience fragmentation of health services. There have been various forms of collaboration in Norway between Community Mental Health Centres (CMHCs), GPs and primary health and social care. But with a lack of rigorous research on such models, we have little knowledge on how they function and whether they contribute to better patient satisfaction and better outcome.

Family Health Teams – a model that will be adjusted to the Norwegian context

The Family Health Team shared care model as developed in Hamilton, Canada, offer a promising model of shared care (Kates 2011a, 2011b). This is built around GP practices. Each team include one or more GPs in addition to nurses, mental health counsellors, a visiting consultant psychiatrist, and some other part-time staff (pharmacist, nutritionist, physiotherapist, occupational therapist). Team members are co-located and provide coordinated health care for both physical and mental

illness. This enhances primary care staff's ability to treat more patients, in turn resulting in fewer referrals to secondary and tertiary specialised services.

The goal is to provide comprehensive health care close to where the patient lives, with minimal fragmentation and with the ability to integrate the treatment of co-morbid somatic and mental diseases. This model has significantly increased access to care for individuals with mental health and addiction problems and reduced waiting times. It has reduced the use of in-patient and out-patient mental health services, improved communication and co-ordination and is greatly appreciated by patients who also find it less stigmatizing. It has also demonstrated significant improvement in up to 70% of patients, and GPs feel more confident and skilled in treating mental health problems (Kates 2011a, 2011b).

The model is consistent with the aims of the Norwegian Collaboration Reform by offering more assessments and treatment within primary care by close collaboration, including with resources from mental health services and the municipality/borough. It is anticipated that the model is well suited to serve patients and families from ethnic minority who in general show higher prevalence of mental illness yet lower use of specialist services (Ayazi & Bøgwald 2008).

2.2. Approaches, hypotheses and choices of methods

The setting for the project

Alna, Grorud and Stovner are three boroughs in the north-eastern part of Oslo. They are served by DPS Groruddalen (Community Mental Health Centre) and other departments in Division of Mental Health Services of Akershus University Hospital (Ahus). As shown in the attached letters, the boroughs and the CMHC are committed to test an adapted model of shared care. The boroughs are among those in Norway with the highest proportion of people from ethnic minorities, providing an opportunity to focus attention on how these populations' needs can be met.

Populations and number of GP group practices in the boroughs are shown in the table below.

Borough	Population	Immigrants*	GP groups	Number of GPs
Alna	47 000	22 000 (47%)	11	37
Grorud	26 000	11 000 (42%)	5	20
Stovner	31 000	14 000 (45%)	4	22
Total	104 000	47 000 (45%)	20	79

*) Including first generation immigrants

During 2013 there have been discussions between the CMHC and the boroughs on how to improve the collaboration between the primary care and the specialized mental health care, and the services are finding that the model of shared care may be adjusted to the local context. Some GPs have also been involved in these discussions, and the GPs in the research group will approach the GP groups in the boroughs during this winter with specific invitation to six GP groups (two in each borough) with altogether approximately 24 GPs to participate in the project.

Cohort definitions and methods common for WP1 and WP 3

In WP1 and WP3 we will collect data from two similar cohorts of patients and in similar ways. This is outlined here and referred to in the descriptions of WP1 and WP3 below.

We will recruit approximately 24 GPs working in two different GP group practices in each of the three boroughs listed above. These GPs must be willing to take part in both WP1 and WP3, and they must be willing to be randomized (as groups) to be involved in shared care or continue with current practice.

Register Cohort

Register Cohort: All patients 16-65 years old and seen by the 24 GPs during 12 months. The reason for choosing 12 months is to have a long enough period to get enough data on referrals between services.

Variables: Age, gender, marital status, borough, GP, referrals, ICPC-2 codes/ICD-10 diagnoses, GAC scores, GP consultations, outpatient consultations and inpatient stays in specialized mental

health and substance abuse services, type of ward/team, use of coercion, codes on treatment procedures, social care, employment, sick leave and prescriptions of medication.

Data collection: Data are extracted from the GP patient records, accident and emergency clinics in Oslo, Akershus University Hospital (specialized mental health and substance abuse services for adults and youth), NAV (the social care, work/sick leave and social security agency). Data

extraction from GP records and the accident and emergency clinics are done by Svein Gjelstad, who is a member of the research group and has a company (Mediata) specializing in such data extraction with extensive experience from other studies. Data from electronic hospital patient records will be extracted by ICT engineers in the Research Support Centre of the hospital, following procedures used in several previous studies. Data from the other registers are ordered from these according to their procedures. All data files will include the personal identity number used in Norway, and they will be linked by NAV. The research group will receive an anonymous data file.

Clinical Cohort

Clinical Cohort: Patients 16-65 years old seen by the 24 GPs during 4 weeks within the 12 months of the Register Cohort, and giving written consent to participate in the outcome study. This includes filling in a one page questionnaire at the index consultation, receiving a similar questionnaire 3 and 9 months later, and giving consent to link the data on the questionnaires to the data from the Register Cohort described above. The questionnaire after 3 months will measure short term outcome and satisfaction, and the questionnaire after 9 months will measure longer term outcome and satisfaction. From experiences in earlier studies with similar procedures in GP practices, we expect that 70-80 % will give consent (probably somewhat lower for immigrants).

Variables: Age, gender, borough, GP, satisfaction with health services (CSQ-8), mental health problems (CORE-10), substance abuse (CAGE-4), waiting time, experience of collaboration. The primary outcome measure in the cluster randomized trial will be the Client Satisfaction Questionnaire (CSQ-8), which has been used extensively in research (Larson 1979). The secondary outcome measures will be CORE-OM 10 (10 items, Barkham 2013), which is a short form of the now well established questionnaire CORE-OM on mental health problems. It has excellent psychometric properties and is available in Norwegian.

Data collection: At each GP group a staff member is paid part time by the project during the four weeks to administer the questionnaire to the patients seen by the GPs. The patient will receive the questionnaire and information on the study when they arrive and deliver it to the staff member when they leave. The staff member will receive the completed questionnaire and written consent from patients that agree to participate. The questionnaire will be available in Norwegian and English, and the staff member will be available to help the patient if requested. The PhD candidate or other members from the research group will visit these staff members weekly during the data collection period to support them and to collect the completed forms. The questionnaires at 3 and 9 months follow-up will be sent as paper forms by mail. (We may consider electronic data collection on smart phones in collaboration with experts.)

Health Worker Cohort

Health Worker Cohort: The approximately 24 GPs and staff in the six GP groups recruited for the study, the clinicians and other staff at the outpatient clinics and mobile teams in the CMHC (and BUP and ARA?), and health and social workers in the primary mental health and substance abuse care and social care (NAV), any primary care for adolescents.

Variables: Pattern of collaboration last 6 months (with whom, how, how often), assessment of the quality of the services and the collaboration, suggested improvements in collaboration. The questions on collaboration will be based on the Hamilton Clinician Activity Instrument developed by the research group in Canada, but tailored to the Norwegian setting.

Data collection: Data from the GPs and other health workers will be collected using the Snap Survey software for electronic data collection on internet. A project coordinator in the R&D Department in the Division of Mental Health Services, Akershus University Hospital, will design

the electronic form, collect email addresses from the services, send out emails with a link to the electronic web based questionnaire, and make the data available as data files ready for analysis.

Estimated sizes of cohorts

Estimated size of the Register Cohort: Based on knowledge from the patient registers involved, we have estimated that the sample size of the Register Cohort in WP1 will be approximately 20100 patients. This builds on estimates that the 24 GPs see 70 % of their 1200 list patients during a year.

Estimated size of the Clinical Cohort: Building on the estimated size of the Register Cohort (above), we estimate that the 24 GPs will see altogether 1800 patients during 4 weeks, as 4 weeks are 1/11 of the 44 weeks a year that the GP is required to run their practice. If 75 % give consent to take part in the study on patient satisfaction and outcome, this will be 1350 patients.

Estimated size of the Health Worker Cohort: Approximately 24 GPs, 40 clinicians at outpatient clinics and mobile teams and 60 mental health and social workers in the boroughs is expected to fill in the questionnaire on experiences of current practice, needs for improvements and shared care.

Handling of completed questionnaires and data files

Completed questionnaires from the Clinical Cohort will be kept locked in a safe place at each GP group and collected weekly by the PhD candidate or other members of the research group. The data will be registered by project coordinators in the R&D Department in the Division of Mental Health Services, Akershus University Hospital, in a data base on the approved and secure research server dedicated to research data in Akershus University Hospital. The anonymous data files from the Register Cohort will also be saved on the same dedicated research server at the hospital.

Approval of the project

Application is sent in February 2014 to the Regional Committee on Ethics in Health Research (REK) for approval of the project, including extracting data from the electronic registers and for having the data linked by NAV. The data file that will be made available for the research group will be anonymous.

WP1: Study of current practice and needs for improved collaboration

The aim for WP1 is to study current practice and study needs for improved collaboration. These results will also be used as a baseline in the before-and-after design to control for differences among sites in the comparative study in WP3.

Research questions for WP1

1. What are the characteristics of patients seen in the current practice (ICPC-2 codes, mental health problems, drug problems, functioning, service utilization, quality of life)?
2. What are the patterns of collaborative contacts and activities?
3. How satisfied are patients with the services they receive and the collaboration between them?
4. What do the GPs, primary care and mental health services want and need regarding collaboration and competence?

Design of WP1

See above for descriptions common to WP1 and WP3, as well as definitions of the cohorts.

Cohorts and periods for data collections in WP1

Register Cohort in WP1 will be all patients seen by the 24 GPs from July 1st 2013 to June 30th 2014. The data will be extracted from the registers for the same period of time. The data extraction will be done in September 2014. **Clinical Cohort in WP1** will be patients seen by the 24 GPs during four weeks in May/June 2014. **Health Worker Cohort in WP1** will be the 24 GPs and the clinicians and health workers in the other agencies in May 2014.

WP2: Adapting and implementing the Norwegian model for shared care

WP2 will be done by the collaborating services supported by the research group. The Family Health Team model of shared care will be adapted to the Norwegian context, based on results of WP1 and a visit to Canada to learn more about the model. In this process we follow advice given by the Medical

Research Council in UK regarding the needs to adapt models to the local context as a part of research (Craig et al 2008). Then the Norwegian model will be implemented, and the implementation process and facilitators and barriers for implementation will be investigated.

A suggested outline of the framework for a model for shared care

Following discussions in the research group and with some of the services interested in trying a model of shared care, a suggested framework for a model may be: Shared care is implemented by developing a multidisciplinary team of health and social workers from the primary mental health care, the outpatient clinic of the CMHC and social care (NAV). There should be rooms available for the team within or close to the GP groups taking part in shared care.

There may be one team serving all the three GP groups, or there may be separate teams or sub- teams. If there are separate teams, some of the resources may be shared by the teams.

The teams may include persons full time or part time, and it may have access on a regular or ad hoc basis to persons working in other services not represented in the team.

The process of defining and deciding on design of the adjusted shared care model

The Norwegian shared care model will be specified late in the autumn of 2014 based on the following sources of information:

- Analyses of the patterns of distribution and referrals between the GPs, primary mental health care, social care and specialised mental health services.
- Analyses of what GP patients, GPs and other health and social workers has answered in questionnaires on current practice and on the needs for improvement in collaboration.
- Analyses of questionnaires and qualitative interviews/focus groups with patients, GPs and health workers on experiences with current practice, and their suggestions for improvement of practices and collaboration.
- Advisory groups of patients with experiences as services users may give important advice on the needs and on drafts of a Norwegian model of shared care.
- Knowledge on the Family Health Team model from available literature, like papers by Kates (2011a, 2011b) and tool kits from the CCMHI.
- Information, experiences and ideas of service user representatives, GPs, health workers and researchers from the visit with the Family Health Teams in Hamilton, Ontario, Canada.

The adjustments and specifications will be done by the services that will take part in the shared care collaboration, as they are the ones who have to agree on what to do and what each part will contribute with. The research group will give input by sharing the results from WP1. The specification of the adjusted model for shared care need to include composition, leadership and organization of the team, as well as a description on the services to be given.

A suggested outline of the process of implementation of shared care

The implementation of shared care is expected to start as early as possible in 2015, while the momentum from the process during the autumn of 2014 is still present.

From research on implementation of new models of treatment, we know that implementation of a model usually takes 6-12 months. Much may be accomplished in 6 months if the implementation is well organized with regular supervision and feedback. The research team may contribute to design of the implementation process and provide feedback from WP1 data.

Supervision will be available as needed from Hamilton and/or by professionals in Norway who is considered to have competence and skills needed for such a process.

WP3: Comparing shared care with current practice

Research questions in WP3

1. What are the experiences of the users with shared care compared to current practice?
2. What is the impact on services utilization and referral patterns?
3. Is there an increase in availability (more users treated for mental health problems?)
4. Successful earlier intervention in the course of illness (prevention, shorter waiting time?)

5. Is co-morbidity (somatic, substance abuse) better identified and treated with the Norwegian shared care model than in current practice?
6. Are there competences in service providers that promote closer collaboration?
7. Are GPs and other services more satisfied with the Norwegian shared care model than with their earlier practice?
8. What is the patient course and outcome with the Norwegian shared care model compared to current practice?
9. What is the impact on the patient experience?
10. Also increase in collaboration between GPs and primary health care?

Design of WP3

See above for descriptions common to WP1 and WP3, as well as definitions of the cohorts.

Cohorts in WP3

The Register Cohort in WP3 will be all patients seen by the 24 recruited GPs (see above) from January 1st 2016 to December 31st 2016. The data will be extracted from the registers for the same period of time. This is the year after the implementation during 2015 of the adjusted model of shared care. The data extraction will be done in February 2017. The Clinical Cohort in WP3 will be patients seen by the 24 GPs during four weeks in January 2016. The Health Worker Cohort in WP3 will be the 24 GPs and the clinicians and health workers in the other agencies in January 2016.

Cluster randomized controlled trial

WP3 is a cluster randomised study. Two GP groups in each of the three boroughs will be randomised to take part in the implementation of shared care or continue with their current practice. The randomisation will be done in the summer of 2014, so that some GPs randomised to shared care may take part in the planned study visit to Canada in September 2014 to see the Family Health Team model in operation. The GPs randomised to current practice may take part in implementing shared care after the research study if the model proves to be successful.

Power calculations for the Clinical Cohort in WP3

Power calculation with 90 % power and CSQ as primary outcome measure shows that to detect a difference of half a SD (3.8) in patient satisfaction between shared care and current practice, we need 85 patients in each arm in a controlled trial with randomisation of individuals. For a cluster randomised trial with ICC=0.03 and 12 GPs in each arm, we need 101 patients in each arm (9 or more per GP). Calculation is done as defined for cluster randomised trials in health services research (Eldridge & Kerry 2012), with elaboration of the CONSORT statement in relation to cluster randomised trials (Schultz et al 2010, Moher et al 2010).

Statistical analyses

Standard statistical analyses will be used to describe various parts of the material, test significant differences, and analyse explanatory models. Growth curve or multilevel analyses will be done of individual progress, with data on the use and services (including collaboration) as explanatory variables. Statisticians at the Research Centre, Akershus University Hospital will give advice and assist with more complex analyses, such as growth curve analysis.

The project plan, project management, organization and cooperation

Principal Investigator is Professor Torleif Ruud, head of the The R&D Department, Division Mental Health Services, Akershus University Hospital (Ahus). The department has 7 senior researchers (3 psychiatrists, 1 child/adolescent psychiatrist, 3 psychologists). One is professor and two are associate professors at the University of Oslo. There are and 12 PhD research fellows and a research support staff. Implementation and quality of mental health services is one priority area, and experiences of users and carers another. The department is co-located with the Health Services Research Centre, with statisticians and ICT experts on patient data extraction.

Project group (see also CVs)

Professor Torleif Ruud, Principal Investigator. Head of R&D Department Mental Health Services, Akershus University Hospital (Ahus), specialist in psychiatry and professor at the Clinic for Health

Services Research and Psychiatry, Institute of Clinical Medicine, University of Oslo. He has been medical director and psychiatrist at a pioneering CMHC with close collaboration with primary care, and he has extensive experiences in mental health services research.

Associate Professor Ole Rikard Haavet, Department of General Practice, Institute of Health and Society, University of Oslo, is conducting research in general practice and primary care, including on mental health and evidence based practice. He works as a GP, and he chaired development of national guidelines for GPs work with adolescents with mental problems. He will take part in recruiting GP groups to the study, be main supervisor for the PhD research fellow in WP1.

Consultant psychiatrist and researcher Ajmal Hussain at the outpatient clinic at DPS Groruddalen (CMHC) will be a key researcher in the project. He has done a PhD on effects of trauma, and is now working half time as clinician and half time as researcher. He will be the consultant in the shared care team in the project, and is a member of the research group.

Senior Researcher Jorun Rugkåsa, Health Services Research Unit, Akershus University Hospital, also has a part time position in the Social Psychiatry Group, Oxford University, UK. She has extensive experience of health services research from Ireland, Northern Ireland, England and Norway. She is a member of the research group and will supervise qualitative interviews.

Professor Nick Kates, McMaster University, Hamilton, Ontario, Canada, has led the development of the Family Health Team Shared Care Model in Hamilton for 20 years, and led the national project Canadian Collaborative Mental Health Initiative (CCMHI) on models and knowledge of the interaction between primary care and mental health care. He has taken part in designing the study.

Professor Mette Brekke, Department of General Practice, Institute of Health and Society, University of Oslo, is doing research on general practice and primary care. She is a member of the research group and will be co-supervisor for the PhD research fellow in WP1.

Economist and Senior Researcher Inger Cathrine Kann, Health Services Research, Akershus University Hospital, has PhD and extensive research experience on register studies on GP practices, primary care and social services. She will design and analyse the studies on register data.

GP and researcher Svein Gjelstad has done his PhD on a study on GP practices, and has developed and used in research a software package which extracts data from the electronic patient record systems used by GPs. He will manage extraction of data from the GPs included in the study.

Assistant Professor Lurås, health economist, Research Director of the Akershus University Hospital Research Centre, including the Centre for Health Services Research (HØKH). She is an advisor throughout the process.

Service user expert Dagfinn Bjørgen, The National Centre for User Experiences in Mental Health (Erfaringskompetanse.no) is in charge of their engagement in research, and will contribute to have user perspectives well represented in shared care and in measuring user experiences. He is now also the national leader of Mental Health Norway, the largest user organization in mental health. He is involved in design, adaption and implementation of the model of shared care, and data analyses and interpretation. He may also involve others from their organisations.

Research Leader Anne Landheim, The National Competence Services for Concurrent Substance Abuse and Mental Illness, Innlandet Hospital, has extensive research experience on comorbidity of mental illness and substance use, and was involved in developing national clinical guidelines. She is an advisor throughout the process.

Specification of what the two research fellows will do

PhD candidate at the Department of General Practice, University of Oslo

Period: 1st September 2014 to 30th August 2017. The PhD candidate, who will be supervised by Associate Professor Haavet and Professor Brekke, will be involved in the WP1 study on current practice. The papers in the thesis will be on patients seen by the various services, the collaboration between the services and user experiences of the current practice. The PhD candidate will also take part in adapting the shared care model for the Norwegian context and preparing the implementation.

Postdoc at the R&D Department, Mental Health Services, Akershus University Hospital

Period: 1st July 2015 to 30th June 2018: The postdoc research fellow will be involved in the WP3 study on comparing shared care with current practice. He/she will publish papers on patient outcomes, patient satisfaction and changes in services related to the model of shared care.

Dissemination and use of the results (more in the application form)

The results will be given as feedback to the various services, including a profile of their practice and the average profile for similar services in the project. Three scientific papers from each of the research fellows will be published, as outlined in the application form. The project will give input the health authorities on the possibility to use shared care on a larger scale to improve collaboration among primary and mental health care.

The results of WP1 will be used in WP2 to define and plan the shared care teams and their way of working. This model will then also be discussed with the GPs and other services as a part of WP2.

Plan of progress. *Plan of progress is detailed in the application form.*

2.4.Budget. *The budget with comments is included in the application form.*

3.Key perspectives and compliance with strategic documents**3.1.Compliance with strategic documents**

The South-Eastern Regional Health Authority and Ahus have collaboration with primary care as a central goal in their strategic documents. The project is addressing several of the key challenges in specifying and implementing the national Collaboration Reform agreed in the Parliament.

3.2.Relevance and benefit to society

The model of shared care between primary care and mental health care may help develop better services for people with mental illness and co-morbid illnesses. Results and experiences with the model may also be generalizable to other aspects of the Collaboration Reform in Norway.

3.3.Environmental impact

The project is not expected to influence the physical environment, but can contribute to the improvement of the psycho-social environment for people with severe mental illness.

3.4.Ethical perspectives

Application of approval of the study is sent in February 2014 to the Regional Committee for Ethics in Research (REK), as well as to the Privacy Ombudsman at Akershus University Hospital. The goal of this project is to contribute to the improvement of services for people with mental illnesses, which has positive ethical aspects. Data collection can be experienced by some users as a burden, and perhaps positively by others.

3.5.Gender issues (Recruitment of women, gender balance, gender perspectives)

Both women and men will be recruited for participation in the study. Statistical analyses will include whether shared care changes how men and women are reached by the services, and whether there are differences in how men and women experience current practice and shared care.

4.Dissemination and communication of results

4.1.Dissemination plan *The dissemination plan is written in the application.*

4.2.Communication with users

The National Centre for User Experiences in Mental Health (Erfaringskompetanse.no) is an important collaborating partner designing the study, interpreting results, disseminating user experience and other results, and influencing health authorities and services to larger scale implementation of new successful models for service delivery. The results will be shared by users and to users in collaboration with these, including on their website www.erfaringskompetanse.no.

References

- Ayazi T, Bøgwald K-P. Innvandreres bruk av poliklinisk psykiatrisk tjeneste. *Tidsskr Nor Legeforen* 2008; 128: 162-5.
- Barkham M, Bewick B, Mullin T, Gilbody S, Connell J, Cahill J, Mellor-Clark J, Richards D, Unsworth G, Evans C. The CORE-10: A short measure of psychological distress for routine use in the psychological therapies, Counselling and Psychotherapy Research: Linking research with practice, 2013. 13(1):1-13,
- Butler M, Kane RL, McAlpine D, Kathol R, Fu SS, Hagedorn H, Wilt T (2011). Does integrated care improve treatment for depression? A systematic review. *J Ambul Care Manage*, 34(2):113-25.
- Craig P, Dieppe P, Macintyre S, Mitchie S, Nazareth I, Petticrew M (2008). Deveoping and evaluating complex interventions: the new Medical Research Council guidance. *BMJ* 337:a1655. doi: 10.1136.bmj.a1655
- Craven, M., & Bland, R. (2006). Better practices in collaborative mental health care: An analysis of the evidence base. *Canadian Journal of Psychiatry*, 51(Suppl. 1), 7S-72S. Retrieved July 23, 2010, from http://www.ccmhi.ca/en/products/documents/04_BestPractices_EN.pdf.
- Eldridge S, Kerry S. A practical guide to cluster randomised trials in health services research. John Wiley & Sons, Chichester, UK, 2012
- Fleury MJ, Bamvita JM, Farand L, Aube D, Fournier L, Lesage A (2012a). GP group profiles and involvement in mental health care. *J Eval Clin Pract* 18(2):396-403
- Fleury MJ, Imboua A, Aube D, Farand L, Lambert Y (2012b). General practitioners' management of mental disorders: a rewarding practice with considerable obstacles. *BMC Fam Pract* 3:19.
- Hviding K, Bugge P, Ekern P, Brelin P, Høifødt TS, Nessa J, Flottorp S (2006). Samhandling om pasienter med alvorlige psykiske problemer i allmennpraksis. Rapport Nr 1-2008. Oslo: Nasjonalt kunnskapssenter for helsetjenesten, 2008.
- Kates N, Mazowita G, Lemire F et al (2011a). The Evolution of Collaborative Mental Health Care in Canada; A shared vision for the future. Position paper. *The Canadian Journal of Psychiatry* 56(5).
- Kates N, McPherson-Doe C, George L (2011b). Integrating mental health services within primary care settings. The Hamiton Family Health Team. *J Ambulatory Care Management* 34(2):174-182.
- Lampe L, Shadbolt N, Starcevic V, Boyce P, Brakoulias V, Hitching R, et al. Diagnostic processes in mental health: GPs and psychiatrists reading from the same book but on a different page. *Australas Psychiatry* 2012;20(5):374-8
- Larson DL, Attkinson CC, Hargreaves WA, Nguyen TD. Assessment of client/patient satisfaction: development of a general scale. *Eval Program Plann* 1979, 2:197-207.
- Moher D, Hopewell S, Schulz KF, Montor V, Gøtzsche PC, Devereaux PJ, Elbourne D, Egger M, Altman DG. CONSORT 2010 Explanation and Elaboration: updated guidelines for reporting parallel group randomised trials. *Journal of Clinical Epidemiology* 2010, 63(8):1-37
- Ouwens M, Wollersheim H, Hermens R, Hulscher M, Grol R (2005). Integrated care programmes for chronically ill patients: A review of systematic reviews. *Int J for Quality in Health Care* 17(2):141-146.
- Polivka BJ, Kennedy C, Chaudry R (1997). Collaboration Between Local Public Health and Community Mental Health Agencies. *Research in Nursing & Health*, 1997, 20, 153–160
- Schulz KF, Altman DG, Moher D and the CONSORT Group. CONSORT 2010 Statement: updated guidelines for reporting parallel group randomised trials. *BMC Medicine* 2010, 8:18
- Seaburn DB, Lorenz AD, gunn WB et al (1996). Models of Collaboration. A Guide for Mental Health Professionals Working with Health Care Practioners. Basic Books. NY.
- Smith SM, Allwright S, O'Dowd T (2009). Effectiveness of shared care across the interface between primary and specialty care in chronic disease management. *Cochrane Database of Systematic Reviews* 2007, Issue 3. Art. No.: CD004910.
- Harkness EF, Bower PJ (2009). On-site mental health workers delivering psychological therapy and psychosocial interventions to patients in primary care: effects on the professional practice of primary care providers. *Cochrane Database of Systematic Reviews* 2009, Issue 1. Art. No.: CD000532.
- van Orden M, Hoffman T, Haffmans J, Spinhoven P, Hoencamp E (2009). Collaborative mental health care versus care as usual in a primary care setting: a randomized controlled trial. *Psychiatric Services*, 60(1):74-9.