Appendix 1

First author and reference	Title	Country
American Pharmacists Association (1)	Consortium recommendations for advancing pharmacists' patient care services and collaborative practice agreements	USA
American Society of Health- System, Pharmacists (2)	ASHP Statement on the Role of Health-System Pharmacists in Public Health	USA
Bjorkman (3)	Care ideologies reflected in 4 conceptions of pharmaceutical care	Sweden
Bluml (4)	Improving outcomes for diverse populations disproportionately affected by diabetes: final results of Project IMPACT: Diabetes	USA
Bush (5)	The corporatization of community pharmacy: implications for service provision, the public health function, and pharmacy's claims to professional status in the United Kingdom	UK
Cameron (6)	Connecting with assisted living consumers	USA
Chisholm-Burns (7)	US pharmacists' effect as team members on patient care: systematic review and meta-analyses	USA
Council on Credentialing in, Pharmacy (8)	Scope of contemporary pharmacy practice: roles, responsibilities, and functions of pharmacists and pharmacy technicians	USA
de Bittner (9)	Report of the 2010-2011 Professional Affairs Committee: Effective partnerships to implement pharmacists' services in team-based, patient-centered healthcare	USA
Dobson (10)	Taking the lead: community pharmacists' perception of their role potential within the primary care team	Canada
Dolovich (11)	Ontario pharmacists practicing in family health teams and the patient-centered medical home	Canada
Ellitt (12)	Quality patient care and pharmacists' role in its continuitya systematic review	International
Farrell (13)	Working in interprofessional primary health care teams: what do pharmacists do?	Canada
Farris (14)	Pharmacists in public health: It's a good start!	USA
Freeman (15)	Does a primary care practice pharmacist improve the timeliness and completion of medication management reviews?	Australia
Gallagher (16)	Improving the working relationship between doctors and pharmacists: is inter-professional education the answer?	Ireland
George (17)	The evolving role of the community pharmacist in chronic disease management - a literature review	International
Gurney (18)	Health care at a crossroad: what will the pharmacists' role be?	Canada
Jorgenson (19)	Integrating pharmacists into primary care teams: barriers and facilitators	Canada
Kolodziejak (20)	Integration of a primary healthcare pharmacist	Canada
Novak (21)	Reducing unnecessary hospital readmissions: the pharmacist's role in care transitions	USA

Patwardhan (22)	The value of pharmacists in health care	International
Pottie (23)	Pharmacist's identity development within multidisciplinary primary health care teams in Ontario; qualitative results from the IMPACT project	Canada
Raju (24)	The expanding role of Minnesota pharmacists in primary care	USA
Ross (25)	Pharmacists as mid-level practitioners/providers	USA
Schoenhaus (26)	2013 Prescott lecture: embracing our roles as medication navigators	USA
Sinnett (27)	You have the tools now create that PPMI model!	USA
Sminkey (28)	Pharmacists on the team: tapping invaluable expertise to foster the triple aim	USA
Smith (29)	Consumer, physician, and payer perspectives on primary care medication management services with a shared resource pharmacists network	USA
Smith (30)	Pharmacists belong in accountable care organizations and integrated care teams	USA and International
Tan (31)	Pharmacist services provided in general practice clinics: a systematic review and meta-analysis	International
Tan (32)	Pharmacist consultations in general practice clinics: the Pharmacists in Practice Study (PIPS)	Australia
Tarn (33)	Older patient, physician and pharmacist perspectives about community pharmacists' roles	USA
Traynor (34)	Pharmacist fits on high-intensity transitional care team	USA
Trygstad (35)	The role of the pharmacist in CCNC	USA
Twigg (36)	An audit of prescribing for type 2 diabetes in primary care: optimising the role of the community pharmacist in the primary healthcare team	USA
Wong (37)	Patient self-management and pharmacist-led patient self-management in Hong Kong: a focus group study from different healthcare professionals' perspectives	Hong Kong

References included in the literature review

- 1. American Pharmacists Association F, American Pharmacists A. Consortium recommendations for advancing pharmacists' patient care services and collaborative practice agreements. J Am Pharm Assoc (2003). 2013;53(2):e132-41.
- 2. American Society of Health-System P. ASHP Statement on the Role of Health-System Pharmacists in Public Health. Am J Health-Syst Pharm. 2008;65(5):462-7.
- 3. Bjorkman IK, Bernsten CB, Sanner MA. Care ideologies reflected in 4 conceptions of pharmaceutical care. Res Social Adm Pharm. 2008;4(4):332-42.
- 4. Bluml BM, Watson LL, Skelton JB, Manolakis PG, Brock KA. Improving outcomes for diverse populations disproportionately affected by diabetes: final results of Project IMPACT: Diabetes. J Am Pharm Assoc (2003). 2014;54(5):477-85.
- 5. Bush J, Langley CA, Wilson KA. The corporatization of community pharmacy: implications for service provision, the public health function, and pharmacy's claims to professional status in the United Kingdom. Res Social Adm Pharm. 2009;5(4):305-18.

- 6. Cameron KA, Pinkowitz J. Connecting with assisted living consumers. Consult Pharm. 2009;24(1):16-8, 21-8.
- 7. Chisholm-Burns MA, Kim Lee J, Spivey CA, Slack M, Herrier RN, Hall-Lipsy E, et al. US pharmacists' effect as team members on patient care: systematic review and meta-analyses. Med Care. 2010;48(10):923-33.
- 8. Council on Credentialing in P, Albanese NP, Rouse MJ. Scope of contemporary pharmacy practice: roles, responsibilities, and functions of pharmacists and pharmacy technicians. J Am Pharm Assoc (2003). 2010;50(2):e35-69.
- 9. de Bittner MR, Adams AJ, Burns AL, Ha C, Hilaire ML, Letendre DE, et al. Report of the 2010-2011 Professional Affairs Committee: Effective partnerships to implement pharmacists' services in team-based, patient-centered healthcare. Am J Pharm Educ. 2011;75(10):S11.
- 10. Dobson RT, Taylor JG, Henry CJ, Lachaine J, Zello GA, Keegan DL, et al. Taking the lead: community pharmacists' perception of their role potential within the primary care team. Res Social Adm Pharm. 2009;5(4):327-36.
- 11. Dolovich L. Ontario pharmacists practicing in family health teams and the patient-centered medical home. Ann Pharmacother. 2012;46(4):S33-9.
- 12. Ellitt GR, Brien JA, Aslani P, Chen TF. Quality patient care and pharmacists' role in its continuity--a systematic review. Ann Pharmacother. 2009;43(4):677-91.
- 13. Farrell B, Ward N, Dore N, Russell G, Geneau R, Evans S. Working in interprofessional primary health care teams: what do pharmacists do? Res Social Adm Pharm. 2013;9(3):288-301.
- 14. Farris KB, Johnson KA. Pharmacists in public health: It's a good start! J Am Pharm Assoc (2003). 2010;50(2):128-30.
- 15. Freeman C, Cottrell WN, Kyle G, Williams I, Nissen L. Does a primary care practice pharmacist improve the timeliness and completion of medication management reviews? Int J Pharm Pract. 2012;20(6):395-401.
- 16. Gallagher RM, Gallagher HC. Improving the working relationship between doctors and pharmacists: is inter-professional education the answer? Adv Health Sci Educ Theory Pract. 2012;17(2):247-57.
- 17. George PP, Molina JA, Cheah J, Chan SC, Lim BP. The evolving role of the community pharmacist in chronic disease management a literature review. Ann Acad Med Singapore. 2010;39(11):861-7.
- 18. Gurney MK. Health care at a crossroad: what will the pharmacists' role be? Res Social Adm Pharm. 2009;5(4):302-4.
- 19. Jorgenson D, Laubscher T, Lyons B, Palmer R. Integrating pharmacists into primary care teams: barriers and facilitators. Int J Pharm Pract. 2014;22(4):292-9.
- 20. Kolodziejak L, Remillard A, Neubauer S. Integration of a primary healthcare pharmacist. J Interprof Care. 2010;24(3):274-84.
- 21. Novak CJ, Hastanan S, Moradi M, Terry DF. Reducing unnecessary hospital readmissions: the pharmacist's role in care transitions. Consult Pharm. 2012;27(3):174-9.
- 22. Patwardhan A, Duncan I, Murphy P, Pegus C. The value of pharmacists in health care. Popul Health Manag. 2012;15(3):157-62.
- 23. Pottie K, Haydt S, Farrell B, Kennie N, Sellors C, Martin C, et al. Pharmacist's identity development within multidisciplinary primary health care teams in Ontario; qualitative results from the IMPACT project. Res Social Adm Pharm. 2009;5(4):319-26.
- 24. Raju A, Sorge LA, Lounsbery J, Sorensen TD. The expanding role of Minnesota pharmacists in primary care. Minn Med. 2011;94(10):49-51.
- 25. Ross LA. Pharmacists as mid-level practitioners/providers. Ann Pharmacother. 2011;45(6):810-2.
- 26. Schoenhaus R. 2013 Prescott lecture: embracing our roles as medication navigators. J Am Pharm Assoc (2003). 2013;53(4):362-4.

- 27. Sinnett MJ. You have the tools now create that PPMI model! J Pharm Pract. 2013;26(2):158-9.
- 28. Sminkey PV. Pharmacists on the team: tapping invaluable expertise to foster the triple aim. Prof Case Manag. 2014;19(3):148-50.
- 29. Smith M, Cannon-Breland ML, Spiggle S. Consumer, physician, and payer perspectives on primary care medication management services with a shared resource pharmacists network. Res Social Adm Pharm. 2014;10(3):539-53.
- 30. Smith M, Bates DW, Bodenheimer TS. Pharmacists belong in accountable care organizations and integrated care teams. Health Aff (Millwood). 2013;32(11):1963-70.
- Tan EC, Stewart K, Elliott RA, George J. Pharmacist services provided in general practice clinics: a systematic review and meta-analysis. Res Social Adm Pharm. 2014;10(4):608-22.
- 32. Tan EC, Stewart K, Elliott RA, George J. Pharmacist consultations in general practice clinics: the Pharmacists in Practice Study (PIPS). Res Social Adm Pharm. 2014;10(4):623-32.
- 33. Tarn DM, Paterniti DA, Wenger NS, Williams BR, Chewning BA. Older patient, physician and pharmacist perspectives about community pharmacists' roles. Int J Pharm Pract. 2012;20(5):285-93.
- 34. Traynor K. Pharmacist fits on high-intensity transitional care team. Am J Health-Syst Pharm. 2014;71(13):1066-8.
- 35. Trygstad T. The role of the pharmacist in CCNC. N C Med J. 2009;70(3):274-6.
- Twigg MJ, Desborough JA, Bhattacharya D, Wright DJ. An audit of prescribing for type 2 diabetes in primary care: optimising the role of the community pharmacist in the primary healthcare team. Prim Health Care Res Dev. 2013;14(3):315-9.
- 37. Wong FY, Chan FW, You JH, Wong EL, Yeoh EK. Patient self-management and pharmacist-led patient self-management in Hong Kong: a focus group study from different healthcare professionals' perspectives. BMC Health Serv Res. 2011;11:121.

Appendix 2

Topic list for the first round of interviews with stakeholders to discuss the identified elements of pharmaceutical care

- 1. Please could you introduce yourself and tell us a bit about your function within your organization?
- 2. Via literature search, we identified several activities that can contribute to improving pharmaceutical care in terms of <u>quality</u>, <u>accessibility</u>, <u>affordability</u>, <u>and sustainability</u>. We would like to know your opinion regarding such activities, concretely:
 - > For activities that are already being performed in The Netherlands, do you see <u>room for improvement</u> in the context of the upcoming (patient-centered) pharmaceutical care?
 - > For activities that are not yet happening in The Netherlands, do you think they should be implemented?
 - > Are there specific requirements that would favor/facilitate the implementation of such activities?
 - > Are there specific issues that challenge or make the implementation difficult?
 - a) Activities that contribute to an <u>adequate use of medication</u> by the patient:
 - a. Good medication transfer between 1st and 2nd line (between primary and secondary care)
 - b. Medication therapy management: assessment of medication for appropriateness, efficacy, safety, and adherence to achieve optimal therapy goals
 - c. Assessment of health literacy and education of the patient (e.g. about possible interactions, proper medicine storage)
 - d. Pharmacovigilance
 - b) Activities that help to improve the ways in which the patient experiences pharmaceutical care:
 - a. Shared decision making about pharmacotherapy
 - b. Patient can choose own pharmacy
 - c. Transparency about prices for medication and services

- d. Results of pharmacist interventions are shared with the public
- c) Activities that <u>facilitate the patient's access to medicines:</u>
 - a. Medicines are always available in pharmacy
 - b. Individualized medicines are available when needed (i.e. compounding)
 - c. Pharmacy is located close to the patient
 - d. Pharmacy is available outside working hours
 - e. Patients with chronic medicines can pick up medication 24 hours per day
 - f. Medicines are available to patients who cannot come to the pharmacy
- d) Activities that facilitate a patient's access to pharmaceutical counselling services:
 - a. Increase awareness of pharmacy services among patients and healthcare providers
 - b. Identify which patients will benefit the most from pharmaceutical counselling
 - c. Provide out-of-hours services (e.g. via call center)
- e) Activities that make pharmaceutical care more affordable for the patient:
 - a. Decrease the costs of medicines and services for patients, e.g. via negotiations between pharmacy providers and health insurers
- f) Activities that <u>make pharmaceutical care more affordable for government/society</u>:
 - a. Diminish burden on physicians by giving pharmacists a role in disease prevention, e.g. via:
 - *i.* Screening/preventive interventions (e.g. weight management, lipid control, hypertension control, osteoporosis prevention, depression, dementia, vaccination, smoking cessation, substance abuse prevention)
 - ii. Lifestyle interventions (e.g. exercise, diet)

- iii. Prevention of infectious diseases (e.g. travel-related illnesses)
- iv. Patient education (e.g.: AIDS awareness, sexual health support)
- v. Immunization services
- vi. A needle-exchange programme
- b. Diminish burden on physicians by giving pharmacists a role in the management of patient's (chronic) diseases, e.g. via:
 - i. Assessing a patient's ability to manage his/her disease and self-administer medications, and educate when needed
 - *ii.* Monitoring a patient's disease condition and parameters (e.g. asthma, hyperlipidemia, chronic heart failure, diabetes, arthritis, osteoporosis)
- c. Reduce unnecessary hospital readmissions, e.g. via:
 - *i.* Medication therapy management, assessment and interventions regarding falls risk, home safety, cognition, mental health, nutrition, caregiver needs
- g) Activities that help to protect the environment:
 - a. Prevent waste
 - b. Ensure good disposal of medicines
 - c. Increase awareness among patients and other health professionals
- 3. Can you think of any other activity that would help to improve patient pharmaceutical care?
- 4. How may your organization contribute to the above-mentioned activities?