**Supplementary material 1.**

**Additional PLD and HCP quotes underpinning the themes identified in the main paper.**

**Thoughts towards AI technology**

*"I think AI is the future, which everyone could benefit from. I am all for it"* (Female, 64, T2, white)

*"Exciting to see technology like this develop within my lifetime!"* (Male, 85, T2, white)

 *“I believe we should not replace humans with machines; it will be a big mistake"* (Female, 55, T2, Black).

*“This movement towards AI is in all ways bad for humanity and should be discouraged and abandoned ASAP. This is my firm view—away with it"* (Male, 72, T2, Black).

*"I don't really agree with AI being introduced in our lives. I'm not sure if it's a good idea. But I know things are changing in our world now, and AI is going to be a part of it. Therefore, I guess I have to accept it will go ahead in diabetic eye screening"* (Male, 32, T2, white).

***“****The quality of AI is as good as the training set. My biggest concerns lie in assessment of less standard appearances, and particularly of missed non-diabetic pathology, which would be evident to a human grader.”* (Male, 41, screener/grader, white)

***“****Personally I believe AI can be used to determine disease/no disease but not the level of disease sue to the complexities and variations in humans.”* (Female, 56, programme manager, white)

**More information needed**

*"I don't know anything about AI so I have no idea how it's going to affect me in a better way or worse*" (Male, 59, T2, Asian).

"*We know that AI will become helpful in the future, freeing up doctors, but it needs to be fully explained in easy language that everybody understands."* (Female, 74, T2, White).

"*I am not confident we are at the stage of using AI to track diabetic eye issues. I would prefer to see trials of using AI over a long period of time to measure how effective it could be”* (Male, 61, T2, Black).

*"I would totally accept the use of AI, especially if results were given on the day. I would want advance information concerning summaries of studies that showed this was effective, including other countries who already do this. I would want reassurance that a certain small proportion of images were double-checked regularly by a human practitioner, especially on introducing AI"* (Male, 57, T2, white).

**Impact on the workforce**

*“My main concern is the potential job losses. Healthcare staff is amongst the most caring professions in the world and that should not change. However, if AI can take some pressure off from the overworked staff I am happy for it to be introduced. If it's leading up to treating staff worse as their job can be done by AI I would not support it”* (Male, 34, T1, White).

***“****Using AI will result in significant staff redundancies. What will happen to them and their families? I understand we need efficiencies to keep up with the changing world but what will happen to future generations?”* (Male, age not provided, T2, Asian).

*“We are told using AI is inevitable, I don’t want to see people sacked or demoted as a result…will the use of AI be resilient in the case of disaster and are there risks in deskilling staff?”* (Male, 67, T1, White).

*“AI could introduce an importance of more qualified and specialized staff, as they will need to deal with just diseased images. On the other hand, some providers will try to find ways how to reduce their workforce/ associated costs”* (Female, 35, screener/grader, Asian).

*“Young screeners/graders like myself wish for more progression and to succeed well in work, using a computer system will [reduce] the time of us graders spent grading images meaning eventually we will no longer be required for the job. This frightens me when I have expressed I wish to progress and learn more but opportunities are not available to do so (2nd grader).“* (Female, 27, screener/grader, white)

**Data regulation, security, responsibility and governance**

*“My main concern would be value for money because the AI, through potentially replacing manual screening time, will have huge costs to implement, support and maintain. To add to it, there are obvious security issues, which will again cost a lot to implement. The concern is also that NHS will be commissioning private, for-profit companies which may be difficult to monitor and properly scrutinise and again public money will be spent on it”* (Female, 46, other manager, white).

**Trust**

*“I think the AI it's the future but we have to time to time confirm its accuracy”* (Female, 54, T2, white).

*"Lack of information results in mistrust and resentment. People do not read signs; they need to be reassured with confidence by the professionals"* (Female, 69, T1, white).

"*To begin with, I would like everything checked by humans to make sure the diagnosis is correct"* (Female, 84, T2, Asian).

***“****AI has the potential to work successfully if controlled and regulated effectively. However, it also has the potential for significant errors to occur and may affect patient confidence and staff morale/professional recognition.”* (Male, 41, screener/grader, white)

**Human involvement, screening experience, and patient and practitioner relationship**

*"AI is fine if it works correctly, but ultimately care professionals should be responsible for checking, especially in the elderly. It's not easy to tell computers specific issues or problems; the human touch will always be best!"* (Female, 66, T2, white).

*"I prefer dealing with a human being than a computer, because AI and the rest of it, they can make mistakes. Humans can make mistakes as well, but in case of a computer getting it wrong, who are you blaming if something goes wrong? So, I always prefer contact with a person than a computer"* (Female, 52, T2, white).

“*I especially would not want to receive a soulless computer-generated letter if my results were not good!" (*Male, 56, T2, white).

*“AI can be used to help graders to grade the images for more reliability but replacing it completely would be an issue for the patients as well as the healthcare professionals. Proper education is required to assure the patients.”* (Female, 35, screener/photographer, Asian).

**Practicalities of AI implementation**

“[AI] *could potentially be an excellent development but like anything new, we have to have a cautious and gradual approach*” (Female, 62, T2, Black).

*"If AI is to be introduced in more health assessments, then clients must be given presentations either online or face to face so they are made aware of and more informed about its impact and positive effects"* (Female, 59, T2, white).

*“My main concern would be value for money because the AI, through potentially replacing manual screening time, will have huge costs to implement, support and maintain. To add to it, there are obvious security issues, which will again cost a lot to implement. The concern is also that NHS will be commissioning private, for-profit companies which may be difficult to monitor and properly scrutinise and again public money will be spent on it*” (Female, 46, other manager, white).

**Efficiency**

*"Using AI in conjunction with the human technician could lead to more accurate results and speed up things for the patients”* (Male, 59, T2, white).

"*I feel AI could be a very efficient, accurate, and reliable first screening assessment. Where any problems were detected by AI, I would prefer a human assessor investigate, due to the judgment required. This feels like an optimum balance”* (Female, 39, T1, Asian).

*“AI is a powerful tool if trained and used correctly. …. Current AI's are not true intelligences but pattern recognition/prediction systems. If properly trained an AI would be very efficient in reviewing images for grading, but you would always need a trained grader to check outliers and random samples.”* (Female, 35, administrator, white).

**Inequalities**

"*I think the ideal scenario is that a practitioner can go through the results of the AI scan with a patient while they're at the appointment, but maybe that ruins all the time saving. It would keep the personal side, while presumably improving detection rates. I think this is going to be much more valuable to older or less tech-savvy people, and those who are more recently diagnosed"* (Male, 29, T1, white).

*“I am concerned about the process can became so impersonal as we are working with a community most elderly people and fragile with a branch of health issues they need the human touch”* (Female, 56, screener/photographer, Other ethnic group).