

Patient portal modelling summary

June 2015

Patient portal financial modelling

This guide examines the financial impact of offering a patient portal. Based on independent research carried out by Sapere Research Group, it considers three factors:

- The direct fee-for-service revenue generated from patient contacts.
- Any extra revenue from charging subscription or service fees to use a patient portal.
- The impact of a patient portal on administration, nursing and general practice time and resources.

The guide reviews the advantages and disadvantages of five models: no patient charge with substitution, no patient charge without substitution or no patient charge with clinical query increase; annual subscription fee model; and online transaction fee only.

Substitution

The term 'substitution' is used in these models to refer to the conversion of services from face-to-face and phone interactions to patient portal-based interactions.

Practice populations

The following modelling is based on a typical practice population, as shown below. If your practice population varies significantly, we recommend you investigate your choices further by consulting the more detailed report and interactive tool on the National Health IT Board (NHITB) website.

Age Group	Gender	Percentage of practice population
< 6 Years old	F	5%
	M	5%
6 – 44 years old	F	27%
	M	24%
45 – 64 years old	F	13%
	M	12%
65+ years old	F	7%
	M	6%

Case mix and episode times

The modelling is based on a typical practice case mix and associated charges, as shown below. Consult the more detailed report and tool on the NHITB website if these assumptions vary significantly from your practice's case mix.

Type of consultation	Percentage of total annual consultation	Average fee
Stable chronic	20%	\$30.12
Acute	20%	\$39.13
Unstable chronic	15%	\$30.12
Preventative screening	11%	\$30.12
Trauma	9%	\$30.12
ELL/Community	4%	\$30.12
Procedure surgery	2%	\$30.12
Scripts	10%	\$17.39
Immunisation	8%	\$17.39
Misc	3%	\$30.12

Current episode times

Minutes per episode			
	GP	Nurse	Admin
Stable chronic	15	15	5
Acute	15	15	5
Unstable chronic	15	15	5
Trauma	15	15	5
ELL/Community	15	15	5
Procedure surgery	15	15	5
Immunisation	10	10	5
Misc	15	15	5
One off sign up to portal	0	0	0
Scripts administration	2	5	9
Lab results	5	12	3
Unavoidable consults	12	12	5
Booking appointments	0	0	5

Patient portal episode times

Minutes per episode			
	GP	Nurse	Admin
One off sign up to portal	2	0	5
Scripts administration	2	0	2
Lab results	2	5	2
Email-level consults/check-ins	5	0	0
Booking appointments	0	0	2

The key to making patient portals financially sustainable is to change practice processes and the model of care. Innovative use of savings in clinical and other administrative resources can be used to free up GPs' time and increase their productivity.

For the full Sapere report please visit: <http://healthitboard.health.govt.nz/our-programmes/patient-portals/patient-portal-resources>

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No patient charge with no substitution

June 2015

About this scenario

The practice offers a patient portal at no charge to patients and assumes there will be no impact in the way patients engage with the practice for normal medical services.

Using this scenario, the best way to free up clinical time is to change the model of care and practice processes.

This scenario supports fast uptake of patients because there are no financial barriers to discourage them from using a portal. It also offers substantial time savings for administrative staff and some time savings for nurses.

Making clinical processes and practices more streamlined and efficient can free up time for GPs and nurses.

Charge Type	Fee
Subscription	\$0
e-Services	\$0

This model assumes no workload substitution is made between usual medical consults and electronic services, and that each patient will make 1.5 clinical queries by secure messaging each year.

Size	Uptake	GP hours	Nurse hours	Admin hours	\$ Revenue change %
2,500	20%	-1.4	+1	+9	-
	40%	-3	+2	+17	-
	80%	-6	+4	+34	-
5,000	20%	-3	+2	+17	-
	40%	-6	+4	+34	-
	80%	-11	+7	+67	-

Small practice (2,500 patients)

For a solo GP practice, this scenario means that if 20 percent of patients used the portal, administrative staff would free up eight hours per week and nurses would free up one hour. This time saving could be used to offset an increase in GP time of just over one hour.

Medium practice (5,000 patients)

For a GP practice with 5,000 patients and 40 percent uptake of portals, administrative staff would save 32 hours each week and nursing staff would save four hours. The time savings could be used to offset an increase in GP time (across all the practice's GPs) of six hours.

Advantages

- No financial barrier to patient uptake.
- Perception of added value of practice's services.
- Opportunity to increase clinical efficiency by redeploying administrative roles.

Disadvantages

- Small increase in GP workload, which should be offset by a change in the model of care and by financial savings.

Who should use this scenario?

This model is best suited to practices that want a large number of patients to use the portal, and that are willing to change their processes to free up additional clinical time for GPs and nurses. It is for practices that believe offering a patient portal will bring little change in the nature of interactions that are not conducted electronically.

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No patient charge with substitution

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About this scenario

The practice offers a patient portal at no charge to patients but assumes there will be an impact on the way patients engage with the practice.

Using this scenario, the best way to free up clinical time is to make changes to the model of care and to practice processes. This assumes substituting some face-to-face workload into patient portal interaction.

This scenario supports fast uptake of patients because there are no financial barriers to discourage them from using a portal. It also offers substantial time savings for administrative staff and some time savings for nurses, both of which can be used to free up GPs' time by making administrative tasks more streamlined and efficient.

Charge Type	Fee
Subscription	\$0
e-Services	\$0

This model assumes a 10 percent workload substitution and that each patient will make 1.5 clinical queries by secure messaging each year.

Small practice (2500 patients)

For a solo GP practice, this scenario means that if 20 percent of patients used the portal, administrative staff would free up eight hours per week and nurses would free up one hour. This time saving could be used to offset an increase in GP time of just over one hour.

Medium practice (5,000 patients)

For a GP practice with 5,000 patients and 40 percent uptake of portals, administrative staff would save 32 hours each week and nursing staff would save four hours. These time savings could be used to offset an increase in GP time (across all the practice's GPs) of four hours.

Advantages

- No financial barrier to patient uptake.
- Perception of added value of practice's services.
- Opportunity to increase clinical efficiency by redeploying administrative roles.

Disadvantages

- Small increase in GP workload, which should be offset by a change in the model of care and by financial savings.
- Decreased fee-for-service intake (offset by time savings)

Who should use this scenario?

This model is best suited to practices that want a large number of patients to use the portal and that are willing to gain most of their financial benefits through changing their model of care. Practices that adopt this model are likely to want to offer the portal to patients without charge, but are also likely to believe it will change the way patients interact with the practice.

Size	Uptake	GP hours	Nurse hours	Admin hours	\$ Revenue change %
2,500	20%	-1	+1	+9	-1%
	40%	-2	+2	+18	-1%
	80%	-4	+4	+35	-2%
5,000	20%	-2	+2	+18	-1%
	40%	-4	+4	+35	-1%
	80%	-9	+8	+70	-2%

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No patient charge with clinical query increase

June 2015

About this scenario

The practice offers a patient portal at no charge to patients and assumes patients registering for the portal will use the clinical query feature at a higher than average level (most practices with a patient portal will receive 1.5 clinical queries per patient each year).

Using the clinical query function may help practices to engage or triage patients more appropriately. Changing the model of care would free up administrative and nursing resources, making GPs' time more productive and effective.

Charge Type	Fee
Subscription	\$0
e-Services	\$0

This model assumes no workload substitution is made between usual medical consults and electronic services, and that each patient will make three clinical queries (twice the expected average) each year.

Small practice (2500 patients)

For a solo GP practice, this scenario means that if 20 percent of patients used the portal, administrative staff would free up eight hours per week and nurses would free up one hour. This time saving could be used to offset an increase in GP time of just over one hour.

Medium practice (5,000 patients)

For a GP practice with 5,000 patients, 40 percent uptake of portals and an average of three clinical queries per patient per year, administrative staff would save 32 hours each week and nursing staff would save four hours. The time savings could be used to offset an increase in GP time (across all the practice's GPs) of 10 hours.

Advantages

- No financial barrier to patient uptake.
- Perception of added value of practice's services.
- Opportunity to increase clinical efficiency by redeploying administrative roles.

Disadvantages

- Small increase in GP workload, which should be offset by a change in the model of care and by financial savings.
- Decreased fee-for-service intake (offset by time savings)

Who should use this scenario?

A practice that does not wish to charge patients but expect a higher than average use of the clinical query function.

Size	Uptake	GP hours	Nurse hours	Admin hours	\$ Revenue change %
2,500	20%	-3	+1	+8	-
	40%	-6	+2	+17	-
	80%	-11	+4	+34	-
5,000	20%	-6	+2	+17	-
	40%	-12	+4	+34	-
	80%	-23	+6	+67	-

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Annual subscription fee model

June 2015

About this scenario

The practice offers a patient portal for an annual fee but with no further charges for use. It assumes uptake of the portal will be lower than the free models, but that patients with access to a portal will be encouraged to use it – driving a modest substitution of face-to-face to online services.

The advantages of this scenario come from a change in the model of care and practice processes, and a modest revenue collected from portal subscription fees. Making clinical processes and practices more streamlined and efficient can free up time for GPs and nurses.

Charge Type	Fee
Subscription	\$20
e-Services	\$0

This model assumes a workload substitution is made between usual medical consults and electronic services, and that each patient will make 1.5 clinical queries by secure messaging each year.

Small practice (2500 patients)

For a solo GP practice, this scenario means that if 10 percent of patients used the portal, would see negligible impact on nurses and GP time and an additional four hours administrative time. This would show an associated 1 percent increase in revenue.

Medium to large practice (10,000 patients)

For a medium to large sized practice with 50 percent uptake of portals, administrative staff would save 85 hours each week and nursing staff would save nine hours. An associated 6 percent in revenue could be used to offset the additional 13 percent GP time (total) in the practice.

Advantages

- Patients who pay to register for the portal will be motivated to use it.
- Perception of added value of practice's services.
- Provides an alternative way to manage frequent attenders.

Disadvantages

- Cost may discourage patients from registering.
- Small increase in GP workload, which should be offset by a change in model of care and practice processes.

Who should use this scenario?

This model is best suited to practices wishing to target a small initial group of patients that may use the portal frequently. The registration fee is likely to restrict uptake to a group of patients that are most likely to gain benefits from using it, and that may be more motivated to use the portal to make the most of their registration fee.

Size	Uptake	GP hours	Nurse hours	Admin hours	\$ Revenue change %
2,500	10%	-0.5	+0.5	+4	+1%
	20%	-2	+1	+9	+2%
	50%	-4	+2	+21	+6%
10,000	10%	-3	+2	+17	+1%
	20%	-5	+3	+34	+2%
	50%	-13	+9	+85	+6%

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Online transaction fee only

June 2015

About this scenario

The practice offers a patient portal at no annual charge but charges a fee for electronic activities. The model encourages patients to register for the portal because there are no financial barriers, but mitigates some reduced revenue collection from a substitution between face-to-face and electronic consults.

Making clinical processes and practices more streamlined and efficient can free up time for GPs and nurses.

Charge Type	Fee
Subscription	\$0
e-Services	\$5

This model assumes no workload substitution is made between usual medical consults and electronic services, and that each patient will make 1.5 clinical queries by secure messaging each year.

Small practice (2500 patients)

For a solo GP practice, this scenario means that if 20 percent of patients used the portal, administrative staff would free up nine hours per week and nurses would free up one hour. There is an additional 1 percent revenue plus time saving in this scenario that could be used to offset GP time across the whole practice.

Medium to large practice (10,000 patients)

For a GP practice with 10,000 patients and 40 percent uptake of portals, administrative staff would save 67 hours each week and nursing staff would save seven hours. There is an additional 2 percent revenue plus time saving in this scenario that could be used to offset GP time across the whole practice

Size	Uptake	GP hours	Nurse hours	Admin hours	\$ Revenue change %
2,500	20%	-2	+1	+9	+1%
	40%	-3	+2	+17	+2%
	80%	-5	+4	+34	+3%
10,000	20%	-5	+4	+34	+1%
	40%	-11	+7	+67	+2%
	80%	-21	+14	+136	+3%

Advantages

- Fast patient registration.
- Reduced likelihood of excessive inappropriate use by patients due to transactional costs.
- Direct offset of fee-for-service income against portal transactions.

Disadvantages

- Lower substitution because of direct costs to patients.

Who should use this scenario?

This model is best suited to practices wishing to register patients quickly but to offset the potential reduction in revenue from substituted face-to-face consultations. There may be some advantages to practices that could use short clinical query-based interactions with patients more frequently.

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